

MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXV. No. 12.
WEEKLY.

BALTIMORE, APRIL 20, 1894.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY FRIDAY BY THE
Manufacturers' Record Publishing Co.
MANUFACTURERS' RECORD BUILDING,
Lexington and North Streets,
BALTIMORE.

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Editor and General Manager.
C. R. MARCHANT, Business Manager.

NEW ENGLAND OFFICE—John Hancock
Building, 178 Devonshire St., Boston.
S. I. CARPENTER, Manager.

NEW YORK OFFICE—39 and 41 Cortlandt St.
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BALTIMORE, APRIL 20, 1894.

Information Wanted.

The MANUFACTURERS' RECORD wants information about Southern industrial and business matters. It invites correspondence from every one who has anything of public interest, whether it be in the shape of discussion of business matters that concern the South's prosperity, the building of a new factory of any kind, the enlargement of an old one, the opening of a mine, the projection or the construction of a railroad, or whatever it may be that relates to Southern advancement. The MANUFACTURERS' RECORD aims to be the medium of communication between the business interests of the South—a medium through which manufacturers and others can express their views and give any facts relating to their own business or to the business of the country, as well as to be the medium through which the business interests of the South shall be made known to the people of the whole country. Every manufacturer in the South must at times have information that would be of interest and value to others, the publication of which would help the South. The MANUFACTURERS' RECORD invites all such correspondence.

WITH the renewed activity and progress which are seen in Baltimore, and the rapid growth of its trade and industrial interests, there comes a revival of the demand for the construction of the Delaware & Chesapeake Canal. Gen. Felix Agnus, who is making vigorous efforts to arouse the people of Baltimore to the importance of this undertaking, recently delivered a public address bristling with facts and figures showing the influence of canals upon the trade of this and other countries. Using these facts, he presented an unanswerable argument as to why the business men of Baltimore should take some active steps to secure the construction of this canal.

The Baltimore Exposition of 1897.

The recent suggestion of the MANUFACTURERS' RECORD that the celebration to be held in Baltimore in 1897 in commemoration of the centennial of the incorporation of this city be made a great Southern exposition has attracted a good deal of attention throughout the South. It is very generally recognized that an exposition of this character would emphasize the good work that will be done by Atlanta in 1895. Such an exposition in Baltimore, midway between the North and the South, would draw both sections here and result in attracting many settlers and many millions of dollars to the South. Among the many letters received in commendation of this suggestion are the following. In a letter to the editor of the MANUFACTURERS' RECORD, Governor Northern writes:

STATE OF GEORGIA, EXECUTIVE OFFICE.
ATLANTA, April 7.

Editor Manufacturers' Record:

I take pleasure in commending the undertaking to have a great Southern exhibition at Baltimore in 1897 for the double purpose of celebrating the centennial of the incorporation of the city and exhibiting Southern resources and development. I think that the plan will prove especially helpful to the Southern States—following up the Atlanta exhibition of 1895 with a great exhibition in Baltimore two years thereafter. Your city has long been the representative metropolis of the South. It is, therefore, a fit place for such an exhibition, and its location will be very largely in its favor, as it is between the two great divisions of the country, and will help to bring the two sections nearer in commerce, interests and feeling. I hope, and surely expect, that the effort will be successful, and I am sure that your city, full of enterprise, will make the undertaking a success, and thus assist in the rapid development of the South.

W. J. NORTHERN, Governor.

Governor Fishback, of Arkansas, writes:

STATE OF ARKANSAS, EXECUTIVE OFFICE.
LITTLE ROCK, April 11.

Editor Manufacturers' Record:

Your suggestion of an exposition of Southern resources at Baltimore in 1897 is, in my judgment, an excellent one. There can be no question that the South is richer in resources, whether in valuable minerals, in timber, in soil, in climate, than any equal area on the continent. Owing to conditions heretofore existing, these resources in many localities are as undeveloped as when first created. In no portion of the South which lies south of Mason and Dixon's line are its resources fully developed or even known to its own people. For these reasons, now that the untoward conditions no longer obtain, this region offers the very best field for investment and for the homeseeker. The great duty of the hour, alike of statesmanship and of the citizenship of the South, is to bring these resources to the attention of the world. I know of few plans by which this can be done more effectually than by the object-lessons afforded by expositions which are properly advertised in advance. I heartily endorse the movement.

WM. M. FISHBACK, Governor.

Governor Hogg, of Texas, writes:

EXECUTIVE OFFICE, STATE OF TEXAS.
AUSTIN, March 30.

Editor Manufacturers' Record:

I beg to assure you that I should be proud to see a great "Southern exposition" held in Baltimore in 1897, and feel confident the people of Texas would liberally patronize it.

J. S. HOGG, Governor.

THE strike of coal miners around Birmingham will affect only some of the mines, mainly those of the Tennessee Coal, Iron & Railroad Co. and the Sloss Iron & Steel Co., but the result

promises to be the introduction of new methods of handling their coal-mining business, which will doubtless reduce the cost to these companies.

The South and Immigration.

It is gratifying to note that the work which the MANUFACTURERS' RECORD and the *Southern States* magazine have been persistently urging upon the railroads and the people of the South in behalf of united effort for immigration is bearing fruit. The whole South is now waking up to the importance of this subject. The railroads and the people are uniting, and railroads that one year ago had given little or no attention to the question of attracting settlers are now getting ready to give their utmost exertions to this great business. The South needs more population; it needs to attract the well-to-do farmers from the North and West, as well as the better class of thrifty foreigners; it needs to have its vast territory more fully occupied, its waste places built up and its agricultural interests extended by an influx of farmers from other sections. No other section in America offers such advantages to the settler. Its genial climate and its prolific soil, its healthfulness, its nearness to markets and the great variety of crops that can be produced, all combine to make this the ideal place for the farmers who are now seeking to wrest a living from the frozen regions of the Northwest. The contrast between the conditions in that section and in the South is so great that it only needs that the advantages of the latter should be fully made known to turn southward a tide of people that will help to enrich and develop every Southern State. Southern railroads are realizing this, and the good work already done by such lines as the Mobile & Ohio, the Illinois Central, the Queen & Crescent and the Southern Pacific is now to be supplemented by equally vigorous efforts on the part of such great systems as the Louisville & Nashville, the Seaboard Air Line, the Richmond & Danville and others. Mr. C. P. Atmore, the general passenger agent of the Louisville & Nashville, has determined to enter upon this with great vigor. In an interview in the Atlanta Constitution Mr. Atmore points out the necessity of immigration and of the combined efforts of the railroads and the people of the South to secure it, and adds:

I am very much in earnest in what I am doing for the encouragement of Southern immigration. We want more people in the South. With more people will come more money and more development and general prosperity. The railroads of the country have their greatest scope of usefulness in this work. They can do much to build up the South if the movement is carried to that successful climax it deserves to reach. The Louisville & Nashville is going to bend every energy for the next few years to build up the country through which it passes, and we have already had marvelous success in this business. We are going to send men to

the Northwest and to New England States and show the people there that we have the finest region of the republic down here. We will give them every opportunity to visit the South and to look around for good places to settle. It is our purpose to ask the people in all the towns along our lines to meet us half way in this business and lend their energies to make us all the more helpful in the building up of their country. The railroads will be doing themselves good, at the same time benefiting the country they traverse. It is the proper thing for them to do now. The railroads have delayed too long this immigration movement. The newspapers can be of great help to the scheme. In fact, we must have the assistance of the Southern press. When we get all these influences and the friendliness of the Southern people on the side of this movement the railroads have united to encourage, I predict that by next fall we will see such an overflowing tide of immigration turned this way as will be powerful to roll back the clouds of financial embarrassment that has for so long been hanging over the railroads and the country alike, and be the harbinger of brighter days that will soon begin to dawn on the South.

Every day brings to the MANUFACTURERS' RECORD reports of the settlement of Northern and Western people in various parts of the South—here a colony, there a family, and in the aggregate the number is already swelling to considerable proportions, but the work is just beginning. From the North and Northwest letters are coming asking for information about the South, asking as to good locations for general farming, for fruit and truck-growing, for business enterprises and for factory locations. Never before was there such a general interest about the South promising such good results.

The Birmingham (Ala.) News endorses the sentiments of the MANUFACTURERS' RECORD and the *Southern States* magazines in the following comments:

The pioneer work done in immigration for the three years past by the Mobile & Ohio and the lively interest also taken in it by General Passenger Agent W. C. Rinearson, of the Queen & Crescent, since his accession to the general passenger agency of the latter system, has had great effect in this line. It has partially aroused some of the other Southern railroads from their torpidity in the matter of immigration, which the South hopes may continue until they are all thoroughly awake to the necessities of the situation and leave no turnable stone unturned for the promotion of immigration to the South. General Passenger Agent Posey, of the Mobile & Ohio, in regard to this says: "Printer's ink used liberally, together with constant and untiring efforts upon our part to lay before the people the facts as to the practical adaptability of the lands along our road for growing fruits, truck, vegetables, etc., grazing sheep and cattle, lumbering, etc., together with the assistance of the people and newspapers upon the line of our road, is why we have done so much in the matter of immigration and with such gratifying results."

Do You Want Machinery?

If so, examine the advertising pages of the MANUFACTURERS' RECORD, where you will find the advertisements of 500 or 600 of the leading machinery manufacturers and dealers of the country. There is hardly any line of general machinery that cannot be secured from some one or more of our advertisers, but if you cannot find what you want in our advertising columns, write to the MANUFACTURERS' RECORD giving particulars of the machinery desired, and the information will be secured for you free of cost.

The Nicaraguan Canal.

It is gratifying to note the interest which is being awakened throughout the country in the necessity of an early construction of the Nicaragua Canal. The business men of all sections who have studied this important question realize that the canal must be built; that it must be controlled by this country, and that to accomplish this government aid must be rendered. There is no other enterprise before the entire world today that would have such a far-reaching effect upon the world's commerce as this canal. Its revolutionizing power upon trade and commerce is almost beyond conception. To the South its construction would mean a degree of prosperity that we scarcely dream of now. It would mean an increase in manufacturing, mining and agricultural interests, an increase in commerce, a development of south Atlantic and gulf ports and of interior manufacturing cities almost beyond our power to forecast. The estimated cost of \$100,000,000 sinks into insignificance when compared with the benefits that would result from its building. It has been said that the building of this canal would annually add to the wealth of the United States as much as the entire cost of its construction. It might very conservatively be said that it would annually add to the wealth of the South alone more than the hundred million dollars which is required for its building. Every day that active work is delayed simply delays the creation of this vast wealth. Its importance to the country, and, in fact, its absolute necessity, are universally recognized, and the time has come to cease hair-splitting theories as to whether the government has a right to undertake a work of this kind or not. Let us build the canal, and build it at once, and the results will justify the expense so quickly that we will be amazed that the work was not done a generation ago.

To Advertise Texas.

Texas is waking up; it is waking up to the injury that has been done to the State by unwise legislation; it is waking up to the necessity of encouraging the building of railroads and the investment of money, and it is waking up to the importance of making known to the world its attractions for the capitalist and the settler. The great majority of the business men of Texas have never ceased to recognize the importance of these subjects, for abler and broader-minded business men than the State of Texas develops it would be hard to find. But the business men have not controlled the politics of the State. The Waco Commercial Club has taken the lead in proposing to the people of the State the organization of some plan by which Texas may be advertised to the world. A circular letter has been issued setting forth something of the undeveloped wealth of Texas and its attractions for settlers, and pointing out the great loss incurred by the failure of the State to be properly advertised. This letter says:

A million dollars spent by Texas in the last few years would have peopled her uncultivated soil and developed her mines of wealth, by simply telling the truth and thus inducing immigration. The trouble has been that Texas has been handicapped by constitutional barriers from thus spending money. We believe the time has fully come when the people of our State realize that this barrier should be removed, and we believe that

the Texas legislature should be called upon to submit a constitutional amendment to the people to remove this embargo. We suggest a united effort on the part of the commercial bodies of our State, as well as the various organizations in the producing and farming localities, and that a meeting be called to agree upon a method to be pursued in this matter.

The MANUFACTURERS' RECORD heartily commends this movement, and believes that not only Texas, but every State in the South, should begin to take vigorous steps to attract the attention of settlers and capitalists.

THE report of the Iron Age shows that the weekly capacity of the furnaces in blast on April 1 was 126,732 tons, an increase of 16,566 tons over March 1. This is an increase since October 1, when the lowest point of production was reached, of 53,000 tons a week, but is 52,000 tons less than the weekly capacity of April 1, 1893. Notwithstanding this heavy increase in production, there was a small decrease in stocks on hand amounting during the month to 11,000 tons. The weekly product of all the furnaces on April 1 compared with that of preceding periods was as follows:

	Furnaces in blast.	Capacity per week. Gross tons.
April 1, 1894.....	144	126,732
March 1.....	133	110,166
February 1.....	125	99,242
January 1.....	130	94,687
December 1, 1893.....	130	99,379
November 1.....	117	80,070
October 1.....	114	73,895
September 1.....	125	83,434
August 1.....	169	107,042
July 1.....	220	153,762
June 1.....	224	174,029
May 1.....	251	181,551
April 1.....	255	178,858
March 1.....	255	176,978
February 1.....	251	171,201
January 1.....	246	173,068
December 1, 1893.....	246	176,271
November 1.....	244	171,082

The position of stocks, sold or unsold, April 1 was as follows, the same furnaces being represented as in former months:

Stocks.	Jan. 1. Tons.	Feb. 1. Tons.	Mar. 1. Tons.	Apr. 1. Tons.
Anthracite pig.....	145,197	147,112	141,889	141,384
Coke pig.....	486,987	501,269	500,217	500,264
Charcoal pig.....	206,260	203,390	211,945	201,538
Total.....	838,444	851,771	854,051	843,186

THE gold product of the United States in 1892 was reported at \$33,000,000, and in 1891 at \$33,175,000. The figures for this year show a gain of nearly 9 per cent. over last year and 20 per cent. over the yield of ten years ago. The exact figures of the silver product of the United States for 1893 have not been tabulated at the mint bureau, but the amount will be about 60,000,000 ounces of a coining value of \$77,000,000. The product for 1892 was \$73,697,000, and ten years ago, in 1883, \$46,200,000. The actual market value of the silver at the present price of about sixty-three cents per ounce would be only \$37,800,000 for 1893.

At Thurber, in Erath county, they have an inexhaustible supply of good coking coal, and in Llano county, 160 miles distant from Thurber, we have an abundance of the finest Bessemer iron ore in the world. These two points should and must be connected by rail. Efforts are being exerted to secure the construction of coke ovens at Thurber and a railway from that point to Llano, and the construction of a furnace and rolling mill at this place, and the prospects for these efforts to be crowned with success in the near future are very flattering indeed.—Llano (Texas) News.

It is to be hoped that the News is correct. It is inevitable that the Llano ore district will be connected by direct rail line with some coal fields. The wealth of resources is too great not to be utilized, and this can only be done by building a railroad to coal.

BUSINESS VS. POLITICS.

Leading Business Men of South Carolina Tell of the Safety of Investments in that State.

GREENVILLE, S. C. April 13.

Editor Manufacturers' Record:

I send you by this mail some letters from the most substantial business men of this section on the effect here of our political differences. I am sure they could be duplicated in sentiment, at least, in every section of the State. Take out the politicians, and outsiders would never know there was such a State as is included within the area known as South Carolina. Take away the salaries attached to the offices and you would never be able to find a politician.

The majority of our white people are property owners. They are not foreigners, but native born. Every man knows his neighbor. They may vote and think differently on local politics, but when it comes to the transaction of business no people in the whole world will treat each other fairer or with more honesty than these citizens.

Had I had more time I could have given you similar statements from every prominent business man in the State.

W. J. THACKSTON.

THE NATIONAL BANK OF SPARTANBURG.
SPARTANBURG, S. C., April 13.

In reply to your favor of the 12th inst., referring to the financial condition of our people, with a view to correcting erroneous impressions made upon people outside of the State as to the safety of property and investments, and general condition of business, I would say that I believe that the enterprises of this State are in a most flourishing condition, as the dividends will show. The farmers are well-to-do, and are improving yearly. The corporations of all kinds, as a rule, are on a paying basis, and there is constant encouragement for enlargement in every line. If the information asked has any connection with the recent disturbances on account of the dispensary law, and the declaration of martial law in some of the counties, I think that the statements made, from no matter what source, together with the finding of the coronor's jury, all published throughout the country, will establish the fact that there was no insurrection, and that there was no reason for the action of Governor Tillman. This fact will account for the hesitation on the part of many of the military companies, and the refusal of some, to answer the call. It was a hesitation between military duty and duty to their country. They could not believe that the good of the State was uppermost in the movement. I would not like to say that it was a move on the political chess-board, but it looks that way. No county of South Carolina has been in a state of insurrection, and never will be.

GEORGE COFIELD, President.

GREENVILLE, S. C., April 12.

In response to your inquiry concerning the condition of our people and the effect of our political differences, I beg to say that political feeling does not affect our business interests; we may vote on a different principle, but when it comes to business we accept the same standard; that there is no menace or danger to property in any form. The general condition of our people is decidedly better than it has ever been before. All legitimate business properly managed is prosperous. The hard times have taught our people lessons in economy and placed them in better position for future prosperity than they have ever enjoyed. There is no lack of confidence, but, on the contrary, everyone is strong and hopeful.

HENRY BRIGGS,
President American Bank.

GREENVILLE, S. C., April 12.

It gives me pleasure to state in response to your letter that there is no danger, real or imaginary, or menace to any property or

investments in this State. There is a divergence of views on local politics among our people, but business interests are not affected by these differences. While there has been the same stringency in the money market here as elsewhere, every legitimate business has been prosperous. Our farmers are in by far a better condition than ever before. Our manufacturing interests are highly prosperous, as is attested by their business, not a single one having to close down during all the hard times, and by their dividends, not one having to pass a dividend. Our banking is sound and conservative. We will welcome and aid any capital seeking legitimate investment among us, and will give them all the protection they can get anywhere.

FRANK HAMMOND,
President People's Bank.

GREENVILLE, S. C., April 12.

We thank you for the opportunity afforded us to assure you and others through you that our political differences do not affect our business interests. There has never been a time when there was any menace to or jeopardy of private property or danger to any legitimate investments by reason of the strong factional feeling or unfriendly legislation. Capital and labor are entirely friendly and are on by far better basis to continue so than in any Northern State. Coming directly in daily contact with the farmers, we are prepared to say that their general condition was never so good as it is now. Every line of manufacturing that has been wisely and properly managed is prosperous, notwithstanding a decrease in volume of business. Our banks are sound and conservative, and, as their published reports show, their profits were never better. While our people have not and never will lend themselves to a "boom," which finally hurts more than it helps, they always encourage legitimate investments, and have always given and will always give the same protection and support they are willing to accept for themselves. So far as our city is concerned, we go further and exempt from municipal taxes any manufacturing interest for a period of ten years whose investment amounts to \$4,000. As we had the money in the bank for that purpose, we have anticipated the interest on our city improvement bonds, due in July, and have ordered the same paid now upon demand. Our people are strong, self-reliant and full of confidence in their own ability and resources of their country.

JAMES T. WILLIAMS,
Mayor of the City of Greenville.

W. C. CLEVELAND,
Chairman Finance Committee.

NOTE.—Mr. Williams is the senior member and manager of the firm of James T. Williams & Co., wholesale dealers in hardware. Mr. W. C. Cleveland is the largest individual taxpayer in the county of Greenville, and does a private banking business. His investments are in every kind of property from large landed estates to government bonds.

PORT ROYAL & WESTERN CAROLINA RY. CO.
AUGUSTA & KNOXVILLE RAILROAD CO.

SPARTANBURG, S. C., April 13.

In my opinion there is no reason whatever to mistrust the condition of affairs in this State. Life and property are just as safe and secure here as anywhere. The recent whiskey war, which was purely local, has demonstrated the power of the State government to preserve peace. Piedmont Carolina is the most favored section of the Union. All our factories are running on full time, and several new cotton mills are being built. The operatives all seem contented and happy, and the skies are just as bright as ever. I know of nothing either on the surface or under it that is calculated to interfere with the progress of our people in every line of industry, agricultural or manufactory. We

have prospered during the last ten years, and every indication points to increased prosperity. Our towns and cities are growing; our manufactories are being enlarged, and our farms and farmers are in a better condition than ever heretofore. Our banks seem to have an abundance of money, and what is needed from abroad is readily obtained in New York with local stocks as collateral. South Carolina is not as much disturbed as other States, where the military are so often called upon to suppress strikes. Our people are peaceful, law-abiding and seem to be perfectly satisfied, conditions which, all united, I do not believe you can find today in any other section, certainly not in the congested centres of population.

JOHN B. CLEVELAND, Receiver.

GREENVILLE, S. C., April 12.

In response to your letter I beg to say that our business has increased nearly 25 per cent. this season over that of last, which amounts to nearly \$40,000 increase. We sell to both dealers and also farmers direct, and are thus brought in direct relations with farmers, merchants and bankers throughout upper Carolina. Outside of the general depression felt all over the country, we consider the general condition excellent. Whatever may be the effect of our political differences on those outside the State, they have no influence on our trade. I am sure no section of the country has a better basis for full and complete prosperity than this section.

O. P. MILLS,

President Greenville Fertilizer Co.

In response to your inquiry concerning the condition of our people financially, I beg to assure you that we are all right. I do not consider any legitimate investment in this section as endangered by reason of the wide divergence of political views of our people. All well-managed business has produced substantial returns. We are quite satisfied with the returns from our business. Our people will gladly encourage and accord protection to all legitimate enterprises.

G. A. NORWOOD.

The Southward Trend of Men and Money.

ATLANTA, GA., April 14.

Editor Manufacturers' Record:

Nearly a quarter of a million dollars has been invested in gold mines near Dahlonega, and preparations for mining on a large scale are being made. Several large tracks of timber lands have been sold to Michigan and Wisconsin parties. Ohio and Pennsylvania people are investing largely in Georgia fruit and farm lands. Yesterday I saw a gentleman from New York, who said arrangements were complete to settle several hundred families on fruit and grape lands in northwestern Georgia. It really looks as if a solid, steady improvement was beginning.

A. J. MCBRIDE.

Said to be Hunting for Gold.

MONCURE, N. C., April 14.

Editor Manufacturers' Record:

Geo. W. O'Dell, a mining expert, is here from Montana to look over the placer grounds. Mr. O'Dell is in front of millions of dollars of capital, and should every thing prove as favorable as it looks, the Chatham Company is going to move to the front in placer-mining. Surveys are about to be made to conduct the water to the diggings.

DAWE & HANSON.

MR. GEORGE W. PACK, who recently purchased a piece of suburban property at Asheville, N. C., advises the MANUFACTURERS' RECORD that it has been divided into lots and streets laid out. It will be placed on the market at once. Mr. Pack states that he believes Asheville's growth has been retarded by too high prices for land, and he intends selling these lots at moderate prices.

SOUTHWEST VIRGINIA.

Its Industrial Interests Improving in Spite of the Hard Times.

ABINGDON, VA., April 13.

Editor Manufacturers' Record:

Business in southwest Virginia is steadily improving, and in spite of the troubles experienced during the past twelve months a spirit of greater confidence seems to pervade business circles generally. Shipments of Pocahontas and Clinch Valley coals have been greater than ever before, and the increase has been steady from month to month. In addition to the usual markets for Pocahontas coke, two solid trains of coke are shipped each day to the Illinois Steel Co. Timber sales are once more being transacted, and considerable relief has been experienced from this source, while lumbermen generally throughout the section wear a more cheerful look than they have had for some time, for orders are now coming in which enable them to convert their stock on hand into cash.

Once more strangers are seen in the country looking up iron lands, and the firmer condition of the iron market will doubtless soon restore life to the many idle furnaces. It is a matter of congratulation to all those interested in the welfare and prosperity of southwest Virginia to know that throughout the hard times the furnaces at Roanoke, Pulaski and Big Stone Gap have all been steadily at work, turning out a first-class grade of "pig," and the Horse Shoe Rolling Mills at Max Meadows, Bertha Zinc Works at Pulaski, the vitrified brick works at Chilhowie, the Buena Vista Plaster Co. at Saltville and numerous industries on a smaller scale throughout this section, to say nothing of the machine works and other manufactories at Roanoke, have worked on steadily from week to week, paying their employes regularly and making money for their owners, a good omen, indeed, of what we may expect in ordinary times.

The enormous enterprise at Saltville known as the Mathiessen Alkali Works have completed their salt works, and are now shipping a very superior grade of salt, equal to the best Liverpool and Cheshire. They have a large force of some 500 hands at work on the chemical works connected with the company, and their pay-roll does not fall far short of \$10,000 per week. When completed, and the preliminary work is being hurried on with all possible dispatch, these works will employ about 1000 hands, a large proportion of whom will be skilled laborers. Some idea of the extent of their operations will be gathered from the fact that they will consume 100,000 tons of coal annually.

The Virginia Vitrified Brick Co., at Chilhowie, a comparatively recent concern, has increased its capacity and improved its methods. The beautiful new "Hotel Carroll," at Lynchburg, shows what value this brick has from an architectural standpoint, and the streets of Roanoke and Lynchburg prove the efficacy of its paving bricks. It has secured an order to supply the city of Atlanta with 5,000,000 brick for paving, the price for which will be about \$50,000.

The Buena Vista Plaster Co. is working night and day, and is sending out fertilizers, materials for fertilizers and calcine plaster at the rate of about 10,000 tons per annum.

The Dora Furnace, at Pulaski, has just blown out for repairs after a run of two years, a truly remarkable run, when the daily output is considered, which has been but a few tons short of the daily capacity of the furnace on a daily average. The furnace of the Pulaski Iron Co., at the same place, has a record equally good.

Work is to be resumed in the course of a few days on the plant of the Wise County Coke Co., situated at Coeburn, Wise county, Va. This company will operate

under unusual advantages, and will produce a coke equal to the best Pocahontas or Connellsville.

All of these facts but tend to prove what the MANUFACTURERS' RECORD has so often asserted, that when times assume a normal condition an era of prosperity will start in the South which will place it second to no territory on earth as a producer and manufacturer.

A. P. WILMER.

LEADING BUSINESS MEN

Of Virginia Discuss the Tariff Question—The Roanoke Exposition Meeting.

WASHINGTON BUREAU, MANUFACTURERS' RECORD, ROOM "E," RIPLEY BUILDING, April 17.

No casual observer of things uppermost in the public mind can make a trip through southwest Virginia, and especially the twenty or more counties of which Roanoke is getting to be the commercial metropolis, without discovering these two conditions:

First. That there is a growing belief that the threatened destruction of the prosperity of that great coal and iron region by unwise tariff legislation will be averted through the wisdom of the Senate; and, consequently,

Second. That there is a widespread conviction that better times are at hand, and that there exists a public spirit which, with united activity, will bring to that region a more substantial prosperity than has been anticipated by conservative men at any period since the war.

That is saying a great deal, but no one could have mingled among the best elements of southwest Virginia assembled last week as delegates to the Southwest Exposition Convention without endorsing the correctness of this position. But inasmuch as there would never have been (as Mr. P. L. Terry declared) any movement of this kind but for the encouraging outlook, due mainly to confidence in a conservative settlement of the tariff question, it would be putting effect before cause to tell about the convention itself before referring to the opinions of prominent men, which reflect the public sentiment prevailing in southwest Virginia on this all-important question. On arriving at Roanoke I had occasion to call first upon Mr. P. L. Terry, the president of the most important financial institution in southwest Virginia, namely, the Roanoke Trust, Loan & Safe Deposit Co., and found him, together with Mr. S. W. Jamison, the secretary of that institution, and several other leading business men,

ALL LIFETIME DEMOCRATS,

engaged in a commendatory discussion of that portion of Senator Hill's speech wherein he declared that the conditions which prevailed between 1887 and 1890, when the treasury was swollen with an overwhelming surplus, do not apply today, when the treasury is wrestling with a deficit and the industries of the country stand paralyzed. These practical, clear-headed business men, with large interests involved, thought, as Mr. Hill expressed it, that "what was safe and prudent then, it would be criminal folly to attempt now." This sentiment is endorsed not only by such men as Mr. Terry, but in southwest Virginia by a large majority of those time-tried democrats who have always advocated democratic doctrine because they believed that it stood for the best interests of the country.

Said Mr. Terry: "Nine out of every ten business men in this section whose opinions are entitled to consideration belong to what is called 'the Sam Randall school.' They believe in a tariff for revenue, with incidental protection to such industries as need protection. In the early stages of the tariff discussion our people did not realize what would be the consequence of a reduction of the duty on bituminous coal and on pig iron. Since, however, such a

flood of light has been thrown on the situation, with special reference to these two commodities, by the MANUFACTURERS' RECORD, as the leading industrial organ of the South, and by nearly every democratic daily in the State of Virginia, to say nothing of the Washington Post, which is gaining ground steadily down in this country—since the real danger is realized, if there should be an election tomorrow, with one candidate advocating a reduction of the coal and iron duties to the figures which are found in the amended bill, and the other candidate advocating, say, sixty cents on coal and \$3.00 on pig iron, ten votes would be cast for the latter to one for the former, not only in Roanoke city, but in nearly every county in southwest Virginia."

Another prominent citizen of Roanoke who has been very conspicuously identified with the development of southwest Virginia who talked about this matter was Mr. James S. Simmons. "Tell me," I asked, "what is the sentiment prevailing in this part of Virginia concerning the proposed reduction of the coal duty to forty cents and the pig-iron duty to what will be in effect only \$1.80 a ton?"

"You may start out tomorrow," he replied, "and make a canvass of the business men in Roanoke, or, for that matter, of every town between Roanoke and Bristol, and you will scarce find a corporal's guard advocating any reduction in the duties on these commodities, calculated to curtail activity in the mines and at the furnaces. However, it is commonly thought to be settled that no tariff bill will be allowed to pass the Senate which will injuriously affect these great interests, which constitute the very foundation of prosperity in this region, and therefore our people have virtually discounted the outcome, and there are apparent many signs of reviving business and of industrial activity which will flow from the passage of a conservative tariff bill."

I next talked with Edw. Havener Kelley, under whose editorial direction

THE ROANOKE DAILY TIMES

has become one of the most enterprising, reliable and newsy papers published in the South. Mr. Kelley came to Roanoke from the State of Maine, and thoroughly understands the attitude of the most intelligent New England manufacturers. In respect to bituminous coal he agreed with me that there were few New England manufacturers who would not prefer the market which prosperity in the Appalachian collieries would secure to them to any temporary benefits from lower-priced coal from Nova Scotia, the inevitable result of which would be to destroy competition and place them at the mercy of a ruthless monopoly. Mr. Kelley has, from the beginning of this agitation, used the great influence of the Times to show to the people of southwest Virginia that free coal would result in their having to pay even more than they are paying now for the coal they consume, with the additional result of the stoppage of pay-rolls, which cause to be spent every month many thousands of dollars in Roanoke and in every southwest Virginia town and village, to say nothing of the suffering which would be brought upon miners and trainmen and their families.

"The mystery of it all," said he, "in the matter of coal, lies in the fact that after it was thought that a duty had been fixed by the Senate committee at fifty cents, it was cut by some sort of 'presto change' influence to forty cents. Fortunately, the committee's action was not a finality, and if it be right to allow forty cents, it is right to allow whatever may be necessary to enable our coal operators to do business profitably and pay living wages."

Another leading citizen of Roanoke who expressed his disapproval of the Wilson bill was

MR. H. S. TROUT,

who is president of the First National Bank. He attributed the recent manifestations of

hope and encouragement throughout southwest Virginia largely to a feeling of confidence in the wisdom of the Senate, which few can be brought to believe will ever agree to any legislation injurious to the coal and iron interests, which underlie the prosperity of this section. He has great faith in the patriotism and courage of Senator Daniel. In fact, so universal and deep-rooted is the popular confidence in this favorite son of Virginia that most of the people have taken it for granted all along that the proposed reduction of the coal and iron duties was but a bubble destined to be pricked when "the Major," as they call the senator, should come to have his say.

Another very prominent democrat who spoke his views in no uncertain sound on the absurdity of the scheme to shut down the collieries of the two Virginias and to blow out the furnaces was Capt. J. H. H.

FIGGATT, OF BOTETOURT,

who will doubtless some day be sent up to Congress. "I cannot, for the life of me," said he, "make out how they class coal and pig iron as raw material when, by the time these two commodities reach the market, they both represent more than ninety-six cents in the dollar of the hardest kind of work. Some people don't appreciate railroads like we do over about Fincastle, where we hope to have two in operation before long, and some people are in favor of anything which they think will cripple corporations. But I am glad to say that there are very few of these narrow-minded, illiberal specimens of humanity in our magnificent county, where the prevailing sentiment is, 'live and let live.' We most heartily approve of the fight the MANUFACTURERS' RECORD has been making for the industrial life of the two great basic products of this region, and while there remains in the tariff bill a vestige of protection for the products of any section, the people of my county are in favor of such a duty on coal and iron as will maintain activity in the mines and keep the railroads busy all the year round hauling the output from the mountains to the seaboard. Any legislation in favor of a would-be monopoly, such as the Dominion Coal Co., is undemocratic, and will act like a boomerang on those who enact it."

And still another of the delegates to this Southwest Virginia Exposition Convention who was outspoken in his opposition to the scheme to devastate the industrial districts of the two Virginias for the enrichment of the stockholders in a monopolistic corporation was

MR. MOOMAW, OF ROCKBRIDGE,

who is the very wide-awake and successful editor of the Buena Vista Advocate, a paper whose circulation, under his management, has been doubled in six months, until now it is much larger than when "the boom was on." Mr. Moomaw took the position that it would be a suicidal act, politically, for any Virginian to advocate the crippling of either the coal or iron industries, which would follow a reduction of the duty on coal from seventy-five cents to forty cents, and that on pig iron from \$6.72 to \$1.80. He considered it a queer sort of "reform" which would result in throwing out of work thousands of miners and furnacemen and railroad employes without cheapening either coal or iron a penny anywhere in these two States. Speaking of Buena Vista, he said that there were many evidences of a revival of prosperity in this, the most substantial of the new towns of the Old Dominion, and if the dread of mischievous tariff tinkering could be removed Buena Vista would soon be the scene of the most healthy industrial activity.

One of the strongest opponents of the proposition to cripple the coal-mining and iron-making industries of southwest Virginia was

CHAIRMAN THOMAS W. MILLER,

of the committee on the plan and organization of the proposed "Southwest Industrial Exposition." Mr. Miller is actively identified with one of the richest and most persistent iron-ore mines in this section of the State, situated only six miles from the city of Roanoke, and now supplying large quantities of ore to the furnaces there, which, in spite of the low prices of iron, are so eligibly located as to be able to keep in blast. Although an iron-ore man, Mr. Miller took the position that southwest Virginia had less to fear from free iron ore than from a duty of only forty cents a ton on coal and of only \$1.80 on pig. He declared that the senator or representative who should ignore the needs of these great interests would never again "be in it," so far as southwest Virginia's vote was concerned, no matter how sound his views or how correct his conduct in other less vital particulars.

From the town of Salem the only man present whom I happened to hear express any opinion on the subject of an inadequate duty on coal and iron was

MR. J. W. F. ALLEMONG,

who could see no excuse and no palliation for a proposition so barren of good and so prolific of evil. He deplored the fact that just as the people were beginning to feel a little encouraged over the industrial outlook, they should be threatened with slaughter in the house of their friends. Nevertheless, he could not be persuaded but that the Senate would act with more circumspection than the House, and thereby demonstrate once more the wisdom of the framers of the government in providing an august deliberative body to stand between all hasty and ill-advised proposals and the real interests of the people.

But the views of the gentlemen whose names have been given were practically those of nearly every substantial man who came up to Roanoke from twenty counties to devise ways and means for the better making known of the resources of southwest Virginia through the instrumentality of an industrial exposition during the coming autumn.

THE ROANOKE EXPOSITION.

There was held at the city of Roanoke, on the 10th inst., a convention of progressive men from all over southwest Virginia to devise ways and means for increasing the prosperity of that wonderful region. For some weeks past the question of a general industrial exposition, to make known alike the industrial and the agricultural resources of the thirty counties which cluster around the "Magic City," has been under discussion in the newspapers and among public-spirited citizens, both in the towns and in the country.

A local committee was recently organized at Roanoke, and an invitation extended to the people of the counties from Augusta on the north to Washington to the southward to meet on the day named. The weather for several days preceding the time agreed upon had been simply vile; nevertheless, so great was the popular interest in the suggestion that in spite of wind and rain and hail and sleet and snow nearly every county in the section indicated sent up one or more of its most substantial citizens.

The meeting was held in the handsome new Academy of Music, and ex-Lieut.-Gov. J. Hoge Tyler, of Radford, who was chosen to preside, made a stirring address, eulogistic alike of the great, rich southwest section of Virginia and of Roanoke city, which he characterized as its queen. Admirable addresses were made by Capt. J. H. H. Figgatt, of Botetourt, and B. C. Moomaw, of Rockbridge, and others.

The "business" talk of the occasion, however, was made by Mr. N. B. Johnson, a leading Roanoke merchant, whose name is familiar to MANUFACTURERS' RECORD's readers through his articles favoring immi-

gration, who took the position that there was no good reason why southwest Virginia should not soon be made as prosperous and populous as similar regions in Pennsylvania, if not, indeed, more so. One of the things to be done, he said, was to divide every farm in southwest Virginia into from two to ten farms and to bring in more good farmers who would make lands which now produce ten bushels of wheat produce thirty, to double each acre's yield of hay, to make such roads and raise such horses that where the teams of today draw only 500 pounds those of the future could draw 3000 pounds to market. In a word, he suggested as a motto for the convention "Smaller farms and more of them, better cultivation, better stock, better roads, more factories, improved business methods and just as little politics as we can get along with." The importance of immigration was recognized by every one who spoke, and the idea that additional agricultural population was as much needed as dwellers in the cities, and that a thrifty rural population was a condition precedent, rather than subsequent, to thriving towns was emphasized.

Of course, a finally-matured plan of precedence was not to be expected at this initial meeting, but there is not a shadow of doubt but that the committee on plan and organization, of which Thomas W. Miller, of Roanoke, is chairman, will soon agree upon one which will be thoroughly acceptable to the entire southwest region of Virginia, of which the result will be a most creditable and useful exposition by the time the leaves begin to turn.

THOMAS P. GRASTY.

KANSAS CITY OF DOUBLE STATEHOOD.

A Great Type of the Best Metropolitanism of the Great West with Immense Possibilities.

Some of the Valuable Contributions of Georgia Citizenship to Kansas City.

Editor Manufacturers' Record:

The endorsement and pledge of co-operation that the Commercial Club of Kansas City gave to the Atlanta (Ga.) Cotton States and International Exposition were strong and hearty, and meant business.

The Commercial Club is the main trade body of the city, representing half a dozen commercial organizations of power—grain, live-stock, real estate, builders and traders, packers, etc.—and therefore carries the stamp of the whole place and its solid backing.

It means a great deal, too. It foretells practical aid in every way. The club has a live and able membership of the strongest men of the city, and these brainy and wise men see a large interest for them in the objects of the exposition.

I have called notice to some of the strong points of Kansas City, its double Statehood, its twenty-six railroad lines, its commercial centrality and supremacy in a dozen affluent States and Territories, its being the first primary wheat market of this country, the second packing and provision market and the fourth grain market of the continent. Let me tell you some other strong points of this city with its large future.

It is the eleventh place in the United States in the value of the business transacted, the nineteenth in the value of the products manufactured, the twenty-fourth place in population, and has the lowest bond debt and the lowest death rate of cities of like population. It has seventeen railroad systems and twenty-six lines, that have an aggregate of 50,225 miles of track; 146,410 trains went in and out of its depots in 1893.

Kansas City has ninety-eight grain firms, twenty grain elevators with a storage capacity of 4,724,000 bushels, seven flouring mills with 4000 barrels capacity a day, and has possibly tributary to it 25 per cent. of

all the wheat raised in the United States.

It has seventy-one live-stock firms, and is the second live-stock market in the world, with receipts of \$92,000,000 in 1893. It has the largest horse and mule sale stables in the world also. It has seven packing-houses that make a product of \$55,000,000, the second largest packing business in the world, employing 7000 hands at annual wages of \$4,000,000. It has 530 factories, with output of \$25,000,000. Its jobbing trade is done by 575 firms, with over \$30,000,000 capital, and it has 300 retail houses that did \$36,451,500 business in 1893. In agricultural implements its jobbing trade is the largest in the Union.

It has twenty banks with \$7,500,000 capital, \$16,292,324 deposits January 1, 1894, and its bank clearings in 1893 were \$474,672,691, and its postoffice receipts that year were \$492,874.

Its growth of business is remarkable and steady. For instance, in March, 1894, the hog receipts were 236,033, against 147,418 in March, 1893, an increase of 88,615, or 60 per cent.

These interesting official figures give an idea of this place, which is linked to Atlanta and the Georgia seaports, Savannah and Brunswick, directly by that fine railway, the Kansas City, Memphis & Birmingham Railroad and its connections. And it can be understood what an interest the city and all its interests have in helping the Atlanta Exposition to scatter its breadstuffs and meat products all over South America and the West Indies and bring back the goods of those countries as imports into our land by the shortest lines of carriage.

Georgia has made many valuable contributions of citizenship to Kansas City. I note two judges of the Missouri Supreme Court from Georgia, Judge Thomas A. Sherwood, twenty-two years, and Judge James H. Gantt, four years on the Supreme Bench, the latter promoted from the Circuit Court. Judge John W. Wofford, an ex-State representative and senator of Georgia, and prominent for Congress there, is now judge of the Criminal Court, while Judge Richard H. Field has recently finished a six years' term on the Circuit Bench. The Rev. J. O'Brien Lowery is the pious and eloquent pastor of the leading Baptist church, the Calvary, and was born in Liberty county, Ga. For twenty years the head of the water plant of Kansas City has been Major B. F. Jones, of Gwinnett county, Ga. Mr. A. J. Vanlandingham, the efficient commissioner of the Kansas City transportation bureau, was born in Wilkinson county, Ga., of a powerful family. In the railroad service at Kansas City are worthy young men—Mr. Charles E. Morris, son of a distinguished professor; Mr. W. S. Basinger, son of an eminent college president, and Mr. C. N. Wilson, an auditor of a road here, all from Georgia. Judge James R. Brown, brother of ex-Senator Joseph E. Brown, of Georgia, has large realty holdings in Kansas City.

I. W. AVERY.

"Doing a Great Work."

In a letter to the MANUFACTURERS' RECORD, President Dayton Hale, of the Atlanta Traction Co., writes: "We are always pleased to give your paper any information, as it is doing great work toward building up the South."

THE convention of Southern ice-makers at Atlanta was attended by representatives of that business from nearly every State in the South. Papers were read on topics pertaining to the industry, and a committee was appointed to consider the erection of a plant in the South for making ammonia. E. E. Eagan, of Asheville, was elected president; R. C. Groves, of Memphis, vice-president, and C. F. Sugg, of Huntsville, treasurer.

COTTON AND CATTLE.

The South Would Suffer Great Loss Should National Legislation Antagonistic to Oleomargarine Be Enacted.

[From the Washington Post of April 15.]

The eyes of the South should be opened to its vital interest in the warfare now being waged against oleomargarine by politicians and the commission butter monopolists of the New York Mercantile Exchange. The constituents that enter into this new, universally-accepted substitute for butter are neutralized leaf lard, oleo oil from choice, sweet beef suet, refined cottonseed oil, Ashton salt and pure, sterilized milk. This year will probably see 100,000,000 pounds of artificial butter manufactured by the concerns that have at large cost to themselves developed this scientific and beneficial bi-product. About 12,500,000 pounds would represent the amount of refined cottonseed oil to be utilized during 1894 in carrying on this growing and healthful food industry.

Nor is the above the only reason why the South should exert its power through the press and through its representatives in Congress to foster the output of artificial butter. At a meeting of the Cattle Raisers' Association held at Fort Worth, Texas; last month Mr. Andrews, in his address of welcome, said:

"Fifteen years ago the average weight of our cattle was 1100 pounds; now it is much greater, probably 1300 pounds. Cottonseed meal is the best fattener in existence."

The following resolution then offered was unanimously passed:

"Whereas, it has come to the attention of this body that systematic warfare has been waged against the production and sale of oleomargarine for the past eight years by dealers in mixed and doctored butter and by politicians who are endeavoring to curry favor with that class and also to inflame the minds of farmers with the untruthful charge that oleomargarine will interfere with the sale of good butter; and, "Whereas, this opposition has recently crystallized into the formation of the National Dairy Union and other similar organizations, whose avowed object is to destroy the production of an interstate commerce in oleomargarine; and,

"Whereas, their efforts have been so far successful that certain legislation is now proposed in Congress, to the end that oleomargarine may be outlawed, and that the citizens of one State shall not be allowed to sell it to another State in the original package; and,

Whereas, we are aware that nearly 70,000,000 pounds of oleomargarine were produced and sold in the United States during the year 1893, which oleomargarine paid internal revenue taxes amounting to nearly \$2,000,000, and was consumed by people because it is a cheap and wholesome butter substitute; and,

"Whereas, one of the principal component parts of oleomargarine is butter-fat of cattle, the use of which in oleomargarine provides an important outlet for a portion of the animal which was previously not used as a food, and the use of which as a food has, we believe, added materially to the value of our herds; and,

"Whereas, oleomargarine has been declared by all scientists of national and international repute to be a clean, wholesome article of food; now, therefore, be it

"Resolved, That we view with great distrust and alarm any attempt on the part of the legislative branch of our government to deprive a good product of the protection of the constitution, and that such legislation would injure our material interests in cattle and also the interests of cotton-growers, since through the use of refined cottonseed oil and meal the largest staple industry of the South is perceptibly

benefited. We believe it to be still more dangerous, because it would point a way to interested classes in any State to legislate successfully against the production of another State which they might fear or believe would compete with the particular articles that such classes were producing.

"We call upon our senators and members of Congress to resist this attempt upon the ground that it is the principle of protection carried to the most dangerous extreme, and because it is directly fostering the interests of one class of producers against another class of producers."

It is established that cottonseed-meal-fed cattle return the sweetest and best strips of choice suet, and that this, with refined cottonseed oil and other ingredients named above, when properly agitated or churned, produce the cleanly, scientific compound known to the trade and families as oleomargarine. These advantages to the cotton-grower alone this year should not fall short of \$12,000,000.

Again, the South, like all hot countries, where ice is costly, has especial needs for oleomargarine as a substitute for butter. Unlike butter, it is very nearly free from the presence of butyric acid. This is the troublesome factor that causes butter to become putrid and unfit for human use. State butter is always poisonous and unfit for even cooking purposes. How much rotten butter is shipped to the South and sold to families and hotels? The South has many reasons for fostering this new industry.

Thousands of families at the North and West are now buying it freely as oleomargarine, and eat it because they find it healthful, nutritious and cheap.

Coal-Mining Matters.

DUNLON, W. VA., April 10.

Editor Manufacturers' Record:

The coal mines of the Pearl Mining Co., at Dingess, Logan county, W. Va., are now running on full time. It mines a superior quality of steam and gas coal, and has orders ahead to keep it busy all summer. The Union Mining Co. and J. D. Hagerty & Co. are pushing the opening of their mines and erection of their tipples. The coal in the Pearl mines is now over five feet thick. Other mines will be opened with the revival of business. These mines are on the Norfolk & Western Railroad, about seventy miles from the Ohio river. The coal companies named lease from the Guyandot Coal Land Association, which grants leases to responsible parties on reasonable terms. The poplar and white oak in this region is very fine, and is being eagerly sought after. The Norfolk & Western Railroad Co. is liberal in its inducements to parties engaging in business along its road.

J. C. M.

A Big Thing for Baltimore.

The MANUFACTURERS' RECORD is authorized to say that the Standard Oil Co. is now engaged in making improvements at its Baltimore works, including the building of large storage tanks, that will result in increasing the exports of refined oil from this port about 50,000 barrels per month. Work will shortly be commenced on the new office building at Canton, where it is the purpose of the company to make its headquarters for this division, which comprises the States of Maryland, Virginia, West Virginia and North Carolina and the District of Columbia.

A New Florida Town.

A dispatch from Jacksonville, Fla., states that a new town is being built on the St. Lucie river to be known as White City. The first house was built in February, but, it is reported, White City has 500 inhabitants and twenty-five buildings, while contracts have been let for over 100 more. P. G. Meyers is at the head of the project.

TEN-MILE COAL & COKE CO.

Location and Description of the Coal—Quality of the Same—Transportation Facilities—General Remarks.

The matter published in the previous issue of the MANUFACTURERS' RECORD relating to this coal property, giving the report in full made on the minerals, while complete so far as the report goes, does not cover sufficiently the manifold advantages of this wonderful coal region. From the accompanying map it will be seen that this immense acreage of coal, covering some 20,000 acres, situated in Harrison county, W. Va., is located in the most prolific part of the main "Pittsburg seam" that runs from north to south through the counties of Marion, Harrison and Lewis, in central West Virginia. Located on the Monongahela waters, fronting the river for miles north and south, it extends westward some twelve or fifteen miles, presenting an unbroken area of solid coal, averaging from eight to nine feet in thickness. The seam may be traced from outcrops along Ten-Mile creek, Robinson's run and other streams draining the section around. The main "Pittsburg seam" lies above water-level throughout this field, and could be mined by means of a drift-mouth entry at the least minimum cost. The coal belongs to the bituminous family of coals, and from practical use of coal from the same seam it has proven a splendid material for domestic, steaming and coking purposes. From nine or ten openings already made, the seam in every place is a solid, horizontal block, with neither anticlinal ridges nor synclinal troughs or valleys. On the sides of the various ridges extending through the property the outcrop is visible on every side, with the most admirable slate roofing and hard clay substance as a floor. The accessibility of the coal, combined with easy mining, renders it of more than ordinary value. Within this same field of the "Pittsburg seam," on the opposite side of the river, numerous mines and coal works have been opened up, and the coals have won quite a reputation for coking, as well as steaming purposes.

The coals of the Ten-Mile Coal & Coke Co. have been fully tested as a material for domestic purposes, and from the same seam, near Clarksburg, they have been shipped east and sold as gas coals. And an analytical test gives the coal a high place for the purposes named. From an analysis made from samples taken from the run of the mines the following results were obtained:

Fixed carbon	61.40
Volatile matter.....	35.57
Water.....	.37
Sulphur.....	1.51
Ash.....	1.21

The fixed carbon shows that the product of the Ten-Mile Coal & Coke Co. compares favorably with that of the New river region, that is famed for its coking qualities and which has won a national reputation.

But this field enjoys other advantages in addition to its intrinsic value. Not only does it possess the material in almost inexhaustible quantity, but the facilities for hauling it to market are at hand. The Monongahela River Railroad runs along the eastern side of the river just opposite this field. At Clarksburg this line taps the great Baltimore & Ohio system that gives the region the advantages of the Eastern markets at Washington, Baltimore, Philadelphia and New York, as well as the Western cities of Cincinnati, Chicago and St. Louis, and northward the Monongahela River Railroad conveys its traffic to Fairmont, where it touches the Baltimore & Ohio, which at this time has completed its line from Morgantown, W. Va., to Uniontown, Pa., giving the region a far shorter and more direct route to Pittsburg than the former ones via Grafton and Wheeling.

The West Virginia & Pittsburg, connecting at Clarksburg with the Monongahela River Railroad, gives the field a southern outlet, along which large quantities could be shipped. But few fields we can name enjoy such fine transportation facilities as this, and on that account commends itself to the investor as well as operator. But in addition to the systems already named now in operation, the reader, by reference to the map, will find that other projected systems centre near this field. The Pittsburg, Western & Southern has been projected, running northward into Pennsylvania; there is another that has been surveyed traversing the section westward to the Ohio river, a distance of forty-seven miles. The extension of the West Virginia Central & Pittsburg Railroad has a projected line from Belington, W. Va., to this region, and the extension of this branch of the West Virginia Central & Pittsburg would give an increased southern territory to the region that would be advantageous in many respects.

The West Virginia & Pennsylvania Railroad has expended considerable sums already, runs northward from this company's property along the west bank of the Monongahela into Pennsylvania, and under certain conditions has the support of one of the largest railway systems in America.

Certainly this coal field is amply supplied with transportation facilities, that are so essential to the successful operation of coal plants in this day and generation.

While on this subject of transportation facilities we desire to disabuse some people of an idea prevailing that the Monongahela River Railroad is run in the interest of any one corporation. It is true this line hauls the coal product of the Monongahela mines, but the mines have no monopoly over the road. The opinion that Senator Camden was not anxious to develop the coal fields across the river or others adjacent is a great mistake, and the following communication must set the matter at rest. He writes just a few days ago on this subject as follows:

"Referring to our conversation and your inquiries in relation to the development of the coal fields on the west side of the west fork of the Monongahela river, in the neighborhood of Lumberport, I will state that it is the policy and intention of the Monongahela River road to bridge the river and make connections with the coal lands on the west side whenever those lands are ready to be operated and assurances can be given of sufficient business to justify the expense. This will not only be done at Lumberport, but at other points along the river between Clarksburg and Fairmont."

From this candid guarantee every doubt must be dispelled as to the senator's policy with reference to that line. The assurance gives everyone on that line all they could wish so far as transportation facilities go.

In speaking further of this coal, we cannot do better than to quote from the report formerly published. It says:

"This coal is of the same measure as that of the Fairmont field, being part of the identical seam, except it is a shade higher in fixed carbon and lower in ash and sulphur. The assay presents a degree of lowness in ash and sulphur almost incredible when compared with that of the region around, but renewed reductions confirmed the first figures as to its purity in that respect. The only accountable reason for this state of affairs is the marked absence of high pyrites of iron, and the further fact that when the vegetable deposit was formed that made the coal this particular section must have been peculiarly free from all impurities that generate the worthless ingredients of bituminous coal. The propinquity of the field to the Monongahela River Railroad and the thriving town of Lumberport, the fact it is in a virgin state and its intrinsic value as coal render it

the most valuable coal field we have seen in this section for future development."

This Pittsburg seam, of which the Ten-Mile coal is a part, is the most reliable and persistent of all the seams of coal known in the carboniferous age. It is perfectly uniform throughout the whole property, being a part of the same seam composing the Monongah, Camden and Commercial coal leads in this immediate region. The thickness averages nine feet, and the product has proven a success as a domestic, steaming and coking coal. As a gas-manufacturing product it possesses no superior, having been repeatedly used in Baltimore, Washington and other places for the manufacture of gas. This coal can be mined at a considerable profit, for from carefully-prepared statistics the following facts present themselves:

One ton steaming coal in Baltimore is worth \$	75
Cost of getting out coal and conveying same to market:	
Royalty on one ton	\$ 10
Cost of mining	35
Freight	2 25
	2 70
	\$1 05

greater profit than that? Can he realize it in the New river or Flat-Top region? If he thinks so let him enquire, and he will find that, like many other things in life, mere delusion.

Further speaking of the region, we quote

very rich in coal and has other deposits that enhance its intrinsic value. Along the various streams we have named openings Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 in the immense Pittsburg seam show to the most casual observer that this vast deposit

it as a whole, the field is unusually rich in a mineral sense."

The various erosions and compressions that nature seemed to have used in the formation of this particular region resulted in the coal being very high in fixed carbon and low in all impurities. Sufficient compression in geological structures formed in this carboniferous period will completely extinguish the bitumen or pitchy substance, leaving the coal of an anthracite quality. Hence, this region is peculiarly free from impurities.

It would be scarcely proper to conclude this report without some remarks upon the general advantages this field enjoys, apart from its great wealth as a mineral-bearing region. In West Virginia mineral properties do not usually possess them, for the wild mountains claim many a rich field of minerals. The Monongahela River Railroad runs directly by the field, where its output of coal, iron and other minerals would have ample transportation facilities. It is within nine miles of the Baltimore & Ohio system, one of the leading highways east and west. Situated on the property is the town of Lumberport, consisting of some 300 people, with churches and schools. This property lies in one of the best regions of Harrison county, and with such advantages and mineral wealth is the most valuable coal region we can think of in this section of West Virginia.

THOMAS BRUCE.

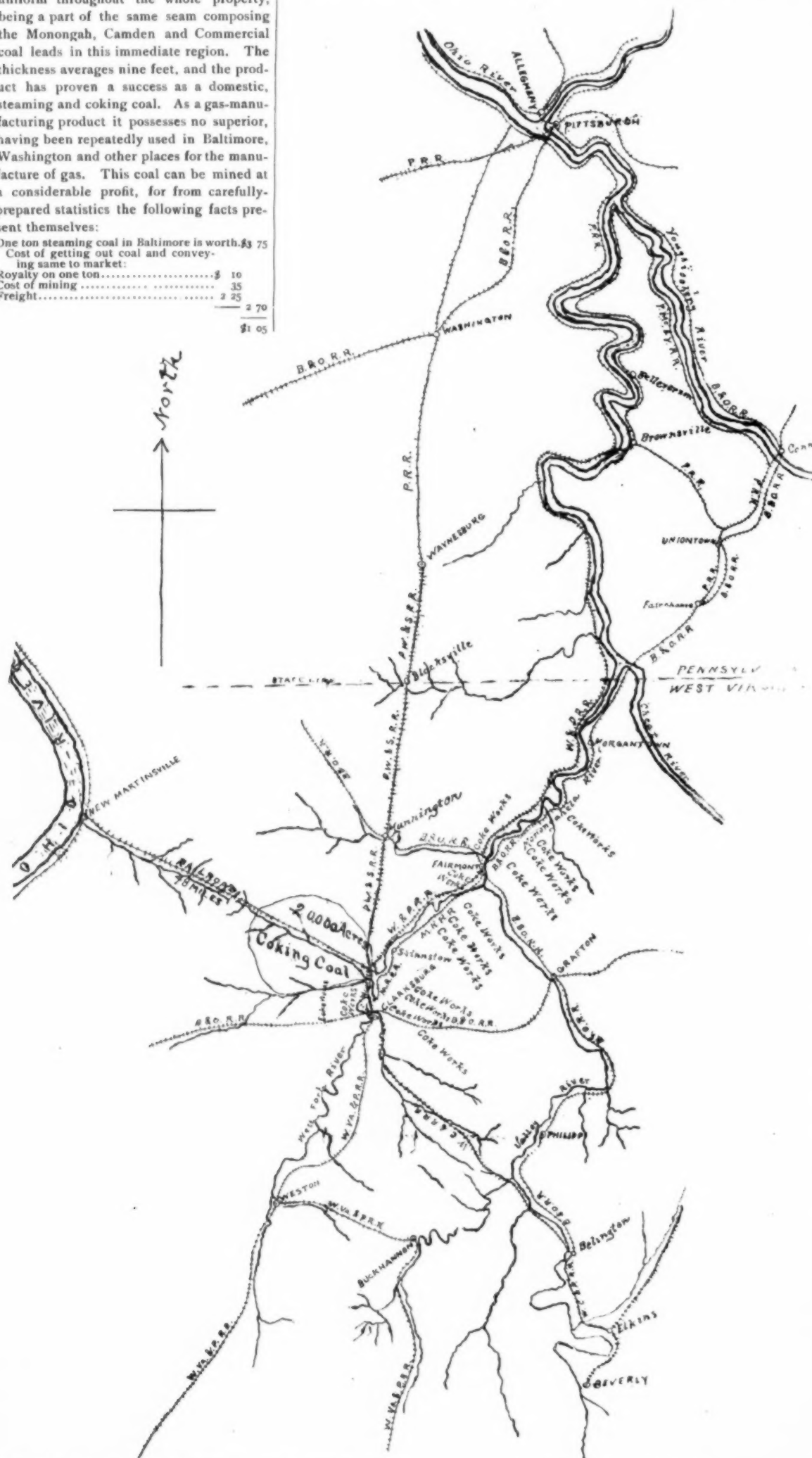
THE WEEK IN THE SOUTH.

Condition of Business and the Latest Features of Southern Progress Summarized.

Although there are complaints from some points of local dullness in business matters, a general survey of the situation shows a very decided broadening out, especially in industrial, land and immigration interests throughout the South. An analysis of quotations of Southern railroad securities listed on the New York Stock Exchange shows that there was an average increase from the lowest point of 1894 to April 13 of 58-13 points, the gains ranging from 1%, the lowest, to 13½ points, the highest. Several important railroad enterprises have been undertaken, including one of about 125 miles in Arkansas from Benton through Hot Springs to a point in the Indian Territory.

A trust company has been organized in Baltimore with subscribed capital of \$1,000,000, which will make a specialty of handling Southern railroad securities. Among the important enterprises reported by the MANUFACTURERS' RECORD for the week are extensive improvements at Baltimore by the Standard Oil Co., which, it is officially announced, will increase the exports of oil from that city about 600,000 barrels a year; a lumber mill and a coal mine in Alabama; the rebuilding of sixty-four miles of railway in Tennessee; a \$250,000 real-estate company, a \$50,000 lumber company and a canal company in Florida; a cigar factory, machine shops, railway repair shops, two fruit-growing companies and a \$50,000 electric plant in Georgia; a brewery, a coconut preparation factory, a novelty works, a telephone company, a \$50,000 manufacturing company and a \$100,000 flour-mill company in Maryland; a pottery and a lumber plant in Mississippi; two cotton mills, a hosiery mill and a tobacco factory in North Carolina; a \$200,000 compress plant and a \$50,000 implement company in Texas; a \$50,000 lumber company, \$200,000 coal company, \$50,000 construction company and coke-making plant in West Virginia; a baking-powder works and coal-mining company in Kentucky; a sugar refinery in Louisiana; a flour mill, tobacco factory, tannery, knitting mill and a foundry in Virginia.

A NUMBER of new buildings are being added to the improvements at Roland Park, one of the most attractive suburbs of Baltimore. They include a block of stores and a number of stone and frame residences.



A profit can be made of \$1.05 per ton. Take off thirty cents for incidentals and repairs, and we have a net profit of seventy-five cents per ton. Does the operator desire a

again from the report:

"From an examination of the minerals of this property anyone in the least acquainted with the subject can readily see that it is

of coal, untouched, must eventually enrich this section. The clays are unusually fine, while the iron ore is sufficient for furnace purposes. Limestone abounds, and taking

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 197.]

The South Carolina.

Wheeler H. Peckham, representing the first mortgage bondholders of the South Carolina Railroad, still holds the property, and, as far as known, the Louisville & Nashville has not secured it as yet. The Louisville & Nashville holds \$900,000 worth of the second mortgage bonds, which railroad experts claim are of little value, since there is an indebtedness having preference over these amounting to nearly \$7,000,000. Hence the argument is raised that the Louisville & Nashville must acquire the South Carolina to protect its interests, saying nothing of gaining a valuable seaboard terminal at Charleston.

A dispatch from Augusta, Ga., states that the Louisville & Nashville is considering the idea of securing the Port Royal & Augusta and building a road from Fairfax, S. C., to Charleston, sixty-five miles, giving terminal points at both Port Royal and Charleston.

The New Florida Road.

Advices from Plant City, Fla., are to the effect that parties back of the Plant City, Okeechobee & Lake Worth, projected from Plant City to the terminus of the Jacksonville, St. Augustine & Indian River road, have secured most of the right of way, and will build forty miles of the line this year. The entire distance is 164 miles. It is reported that along its line are already located nine very large beds of pebble phosphate, for the working of which companies have been organized. With five of these companies the management of the road has made contracts to carry the products of their mines. New mines, it is said, will be located and new plants erected through this country. Besides the 50,000 crates of vegetables and 150,000 crates of oranges which the new road has contracted to carry, there are large forests of fine yellow pine all the way through to Lake Worth, and the milling business will be a paying industry.

As already stated in the MANUFACTURERS' RECORD, the company has been organized with George B. Baker, secretary, and J. B. Mills, president.

An Important Work.

The Nashville, Chattanooga & St. Louis Company has undertaken the widening of its Centerville branch, which extends from Dickson, Tenn., to the Lewis county line, with branches. In all it is sixty-four miles long, and was originally constructed for narrow-gauge rolling stock. Prest. J. W. Thomas advises the MANUFACTURERS' RECORD that the company expects to complete the work by July 1. The plans of the company have, doubtless, been hastened by the extensive discoveries of phosphate made in Lewis and adjacent counties. This line will be one of the main outlets from this region to market.

Shipping Coal from Southport.

Receiver John Gill, of the Cape Fear & Yadkin Valley road, with Messrs. Frank Redwood, William H. Blackford and other members of the bondholders' committee of the line, have been making an inspection of Southport, N. C., which was designed to be the seaboard terminus of the road. They were very favorably impressed with the advantages of the place. Mr. Redwood informs a representative of the MANUFACTURERS' RECORD that the road could secure a largely increased business if the extension is built. An excellent opportunity is afforded to develop the coal-shipping trade. The question of extension has been considered, but nothing can be done at present, though it is expected eventually

to construct the road. The company is arranging to ship coal to Southport from Wilmington by barges.

The New Arkansas Road.

The MANUFACTURERS' RECORD has received information that contracts have been let for the railroad to be built from Kenton, Ark., to Wister Junction, Indian Territory, by way of Hot Springs, a distance of about 125 miles. Col. Uriah Lott, who became famous by building nearly 700 miles of railroad in Texas, starting without any funds to speak of, is at the head of the enterprise.

A Galveston Bridge and Railroad Enterprise.

The MANUFACTURERS' RECORD learns from good authority that several of the principal business men of Galveston, Texas, intend forming a company to build a steel railroad bridge across Galveston bay and a terminal road by which the principal railroads looking for a seaboard terminus in Texas can enter Galveston. The scheme contemplates the construction of a line to Houston either by building the entire distance or by purchasing and completing the La Porte, Houston & Northern, now under construction. It is reported that the Galveston & Western, a narrow-gauge road from Galveston to Nottingham, Texas, may be rebuilt and constitute a part of the system. By this means the San Antonio & Gulf Shore and Gulf & Interstate, projected lines, as well as the Missouri, Kansas & Texas, may find an entrance to the city.

Set Them to Thinking About Immigration.

The MANUFACTURERS' RECORD is pleased to note that the lecture that Col. C. P. Atmore, of the Louisville & Nashville, recently delivered at Gallatin, Tenn., has set many Southern people to thinking. They realize the importance of the tide of immigration toward the South, and they expressed their willingness to co-operate in any movement to gain such an end.

Colonel Atmore's plan is to send four agents into the Northwest at an early date, where they will spend four months. They will lecture on the climate, soil and other conditions of the South, and will seek to have immigration flow in this direction. The Northwest has not prospered in the last few years, the blizzards and dry weather having discouraged those who went there with high hopes, and many are looking about for a more pleasant climate.

Excursion Rates Approved.

The special railway rate to be made to assist Southern immigration has been officially confirmed by the Southern Passenger Association, which has issued a circular to this effect. It is addressed to all companies which are members of the association, and provides that rates of one fare for the round trip can be made from Ohio, Mississippi and Potomac-river gateways to all points in the territory of the Southern Passenger Association. Tickets are to be sold Tuesday, May 8; Tuesday, June 5; Thursday, July 5; Tuesday, August 7; Tuesday, September 4; Tuesday, October 2; Tuesday, November 6, and Tuesday, December 4, and to be of iron-clad signature form, limited to a continuous passage in each direction, with extreme limit, twenty days from date of sale. Stop-overs are allowed under certain conditions.

Railroad Notes.

JOHN MENZIES, who has for the past four years been the general contracting agent of the Louisville Southern, has received notification that he has been appointed general Eastern agent of the Queen & Crescent route, with office in New York.

JUDGE GOFF, at Richmond, has decreed the sale of the Richmond & Danville road

within sixty days from April 15. As the Richmond Terminal reorganization committee controls 95 per cent. of Richmond & Danville bonds, the sale will be simply a transfer to the committee.

S. MORSE has been appointed passenger agent of the Southern Pacific, with headquarters at New Orleans. Mr. Morse has been general passenger agent of the Kentucky Central road.

THE hearing of the Richmond & Danville foreclosure suit before the United States Court at Richmond has been postponed until May 1.

J. G. FRY has been appointed land commissioner of the San Antonio & Gulf Shore road, to be built from San Antonio to Velasco.

JUSTICE WHITE, at Washington, has granted an order in favor of the Georgia Southwestern road, directing that the receiver of the Georgia Central shall pay over to it \$181,000 rental at 7 per cent. per annum for the six months ending December 31, 1893. Twenty-five thousand dollars of this is to be paid at once in cash. The balance is to be paid to the Farmers' Loan & Trust Co., to be held as trustee, subject to the further order of the court.

THE Baltimore & Cumberland Railway Co. has elected Thomas B. Davis, president, and C. M. Hendley, secretary and treasurer.

THE sale of the Raleigh street railway has been postponed until May 2. It is reported that the bondholders may reorganize the company and operate the line again.

The Growing South.

"The Malaria Superstition and the Water Problem" is the title of a striking article in the *Southern States* for April, by James R. Randall. Mr. Randall discusses the relation of impure water to malaria, and maintains that where the water supply is absolutely pure malarial diseases cannot exist. He shows that even in swamp localities malaria and kindred ailments have disappeared with the introduction of artesian or other pure water. In the same number of the *Southern States* Arthur P. Cornwell, Jr., has an article on the "Gardens of Tampa Bay," which is an entertaining description of a noted vegetable growing section of south Florida. "The Yazoo Delta for Immigrants," by Harry Ball, is a graphic presentation of the agricultural resources and capabilities of a region of world-famed fertility. The second article in the series by Richard H. Edmonds on "The South Before the War" is even more noteworthy in the facts it brings out than the first. It is shown by census statistics that in 1860 the South, whose population, including negroes, was only one-third of the total population of the United States, and of whites was less than one-fourth, raised more than one-half of the total agricultural products of the country. Besides producing all the cotton, rice and sugar, 82 per cent. of the tobacco, 92 per cent. of the sweet potatoes and 78 per cent. of the peas and beans of the country, the South raised 44 per cent. of the corn and more than one-fourth of the wheat grown in the entire country. The value of live stock in 1860 was \$467,498,364 in the South and \$639,991,852 in the rest of the country, the South having 40 per cent. of the whole. The South had \$95,000,000 invested in agricultural implements and the rest of the country \$151,000,000, the South's percentage of the whole being 40. In 1860 the South had 30 per cent. of the banking capital of the country. The total assessed value of property in the United States was \$12,000,000,000, of which the South had \$5,200,000,000, or 40 per cent.

The letters from Northern and Western farmers who have settled in the South are continued in this number. A Prussian who settled sixteen years ago in north

Georgia writes: "Nowhere have I seen such golden opportunity for the intelligent and persevering farmer; this opinion, formed sixteen years ago, I see today no reason to change." A preacher who, with worn-out nerves and digestion and prostrated health, went in August, 1893, to eastern Texas to engage in the cultivation of fruits and vegetables for market, writes that he is as rugged as he was at twenty-five or thirty, and is "healthy, happy and hopeful." A farmer in Arkansas who moved from Ohio to Dakota, and after seven years in Dakota moved to Arkansas, writes that that State beats Ohio for corn and clover, Dakota for wheat and the world for fruits and vegetables. Several letters tell of the trucking, fruit-growing and corn and tobacco sections of North Carolina.

In an editorial based on recent census reports it is shown that the increase from 1880 to 1890 in the value of farm assets was at the rate of 37 per cent. for the South and 30 per cent. for the rest of the country. The South, having less than one-fourth as much invested in agriculture as the rest of the country, produced in 1890 nearly half as much in the value of its product as the rest of the country. Of the increase in the value of farm products from 1880 to 1890 in the United States, 43 per cent. of the whole was in the South. The total value of the farm products of the South was 24 per cent. of the capital invested in farming, while the value of the products of the rest of the country was only 13 per cent. of the capital invested.

The departments of Immigration News, Real Estate News, Notes of Progress and General Notes furnish a very comprehensive review of what has been going on in the South during the month in the lines indicated. Altogether, the April number is one of the most interesting yet issued.

The *Southern States* is ably and successfully fulfilling its mission as a journal of Southern resources and advancement, and amply merits the success it is having. The subscription price is \$1.50 a year. Sample copies will be sent for fifteen cents. The *Southern States* is published by the Manufacturers' Record Publishing Co., Baltimore, Md.

A New \$1,000,000 Trust Company in Baltimore.

The Maryland Trust Co. is now being organized in Baltimore, and the full capital stock of \$1,000,000 has been subscribed. This company will devote special attention to Southern railroad securities, and the very broad charter which it has secured will enable it to guarantee railroad and other bonds. Mr. J. Wilcox Brown, who recently retired from the banking-house of Brown & Lowndes, will be the president.

A Prediction Fulfilled.

The 10,000-ton iron contract recently secured by the Howard-Harrison Iron Works, of Bessemer, Ala., formed a special subject of discussion at a recent meeting of the Birmingham Commercial Club. The following sentiment was adopted:

"During the past three years, in close competition with Eastern firms, this company has sold their product over the following expanse of territory: As far east as Bangor, Me., and all through the New England States; through the North up to Winnipeg, the Northwest to Vancouver, B. C., Portland, Ore., San Francisco, Oakland and the entire Pacific coast; Mexico, Cuba, Texas, Colorado, Utah and the entire West, Northwest and North.

"And thus do we have fulfilled, under our very eyes, and almost without the knowledge of our own citizens, the predictions made years ago of Birmingham's possible iron supremacy, at least in one field of industrial enterprise."

SOUTHERN TEXTILE INTERESTS.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on pages 195 and 196.]

American Cotton Machinery.

One of the Boston papers not long since said that manufacturers who wished to buy other forms of cotton-spinning machinery than ring-frames "are compelled, if they wish to get good work, to go outside this country to make their purchases." Wm. H. Bent, treasurer of the Mason Machine Works, Taunton, Mass., has replied to this statement, and has asserted that it is far from the truth. "An experience of more than thirty-five years," he says, "in American cotton-machinery building has made me somewhat familiar with the subject, and may, perhaps, give authority to my assertions. A first-class cotton mill can be built and equipped here without going outside of this country for any machinery whatever. In fact, some of the very best cotton mills we have are entirely equipped with American machinery. The largest cotton-manufacturing concern in the United States, operating more than 420,000 spindles and more than 10,000 looms, making goods which rank among the very best American products, and whose business has been a wonderful success, has equipped its mills with American machinery. The owners and managers are thoroughly practical manufacturers, and I am quite sure that they would not put inferior machinery into their mills, and that they buy the American from preference. It is true that English inventions are adopted by American builders, but it is equally true that American inventions are adopted by the English builders, who advertise them as American improvements. It is true that a large amount of cotton machinery is imported from England, but it is equally true that a much larger amount is built in this country. There has been scarcely any ring-spinning machinery imported, that portion of the industry being confined wholly to American shops, but large importations are made of carding engines, roving machinery and mules, all of which machines are built in large quantities in this country. The competition in these lines is quite severe, and yet it would not exist were the statement which you make true, that no good machinery except ring spinning is made in this country. There are other machines required in cotton mills of equal importance, though in smaller proportion, such as openers, pickers, lappers, drawing frames, spoolers, wipers, slashers, etc., in which both the importer and the home manufacturer share.

"Weaving machinery is one of the largest items in the cost of a cotton mill, and that is all made in this country, for the reason that American manufacturers prefer American looms."

American Textile Machinery in Brazil.

Some time ago the Lowell Machine Co. contracted to furnish the machinery for a gingham mill to be built at Caxias, Brazil. Two young men from the South were selected to go down with it to erect and start it in operation. These were Mr. G. E. Jordan, of North Carolina, and Mr. T. G. Cox of Mississippi. Both were, at the time of their selection, working in shops in New England, where they had gone to learn the cotton-machinery business. It is a compliment to the South that both the men selected to go abroad were Southerners.

It required about a month to go from New York to their destination. The trip was via steamer to Para, thence up the Amazon about 200 miles and then down again, simply because the steamer had to make this side trip, as it were. After returning to Para the steamer continued to Maranhão. From this point they went up

a small river in a boat to Caxias, a place having about 6000 population.

This is a cotton-growing region where cotton grows on trees about the size of apple trees. The fibre is coarser than that of our cotton, and the tree is planted only every five years, not yearly as our cotton is planted.

Messrs. Jordan and Cox put the mill in successful operation, which required about a year's time. It was necessary for them to do almost all the work themselves, as the native help understood nothing about the machinery and was not very efficient for any sort of labor.

The duty on American machinery entering Brazil is nothing; the duty on English machinery is about 65 per cent. This is the result of one of Mr. Blaine's reciprocity negotiations, and the mill which was put up by Messrs. Jordan and Cox is part of the result, in the shape of business, for this country.—Charlotte (N. C.) Observer.

THE COTTON CROP.

Week's Movement Shows Increase of 7539 Bales Over 1893—In Sight for Week 62,505 Bales, Against 54,966 Bales in 1893 and 66,193 Bales in 1892.

The cotton movement since September 1 shows receipts at all United States ports of 5,567,113, against 4,637,282 last year and 6,612,547 the year before; overland across the Mississippi, Ohio and Potomac rivers to Northern mills and Canada, 690,381, against 774,813 and 1,139,327; interior stocks in excess of those held at the close of the commercial year, 139,406, against 212,902 and 279,489; Southern mill takings, 559,055, against 540,914 and 489,682. Foreign exports for the week have been 67,183, against 106,704 last year, making the total thus far for the season, 4,559,400, against 3,569,697 last year, or an increase of 989,703.

Northern mill takings for the past seven days show an increase of 11,082 as compared with the corresponding period last year, but the total takings since September 1 have decreased 291,159. The total takings of American mills North and South and Canada thus far for the season have been 1,805,499, against 2,081,438 last year. These include 1,222,529 by Northern spinners, against 1,513,688.

It must be remembered that the weekly, monthly and season's comparisons in Secretary Hester's reports are made up to corresponding date last year and year before. Comparisons to close of corresponding weeks are misleading, as totals to close of this week last year would take in 226 days of the season, and to close this week in 1892 includes 228 days, whereas to close this week this year covers only 225 days.

COTTON IN SIGHT.

(Including movement in three years from September 1 to April 13, inclusive.)

	This Year.	Last Year.	Year Before.
Receipts at ports since September 1.....	5,567,113	4,637,283	6,612,547
Overland to mills and Canada—net.....	690,381	774,813	1,139,327
Interior stocks in excess of Sept. 1.....	*139,406	212,902	279,489
Southern mills' takings, less consumed at Southern ports included in port receipts.....	559,055	540,914	489,682
Total in sight.....	6,955,955	6,165,912	8,521,045
Per ct. of crop in sight.....	92.02	92.02	94.30
Brought into sight after April 13.....	534,453	514,334	
Total crop.....		6,700,365	9,035,379

*Based on twenty-four leading interior towns reported to the exchanges, and also stocks at Houston, Texas, Griffin, West Point and Athens, Ga., and Meridian, Miss.

MOVEMENT AFTER APRIL 13 LAST YEAR AND YEAR BEFORE.

	Last Year.	Year Before.
Port receipts.....	451,100	525,353
Overland to mills direct.....	137,333	114,233
Southern mills' takings from interior direct.....	158,913	154,237
Total.....	747,355	793,823
Less interior towns' stocks from this year's crop in sight on April 13.....	212,902	279,489
Amount brought into sight after April 13.....	534,453	514,334
Per cent. of crop brought into sight after April 13.....	7.89	5.70

Above figures show movement to Northern mills according to system of counting all transit cotton between the ports as having gone to the mills.

SUPPLY AND DISTRIBUTION OF COTTON.

	This Year	Last Year
Supply:		
Amount brought into sight during 225 days of season.....	6,955,955	6,165,912
Stocks at ports and 29 principal interior towns left over from last crop.....	399,956	532,951
Total supply during 225 days.....	7,265,911	6,698,863
Distribution:		
Exports to Great Britain.....	2,567,779	1,871,902
Exports to France.....	562,459	494,005
Exports to Continent, etc.....	1,419,481	1,203,790
Exports to channel.....	9,681	
Total exports 225 days of season.....	4,559,400	3,569,697
Amer. spinners' takings:		
North.....	1,222,529	1,513,688
South.....	582,970	567,750
Total domestic spinners' takings.....	1,805,499	2,081,438
Burned.....	886	46
Stock at U. S. ports April 13.....	693,395	721,050
Stocks at interior towns.....	266,731	326,632
Total American stocks.....	960,126	1,047,682
Total distribution.....	7,265,911	6,698,863
Net overland for this week this year.....	11,894	
Net overland for this week last year.....	7,285	
Net overland for this week year before last.....	5,495	
Net overland thus far for month this year.....	16,475	
Net overland thus far for month last year.....	17,782	
Net overland thus far for month year before last.....	27,643	
Brought into sight this week.....	62,505	
Brought into sight same seven days last year.....	54,966	
Brought into sight same seven days year before last.....	66,493	
Brought into sight 13 days of April this year.....	104,019	
Brought into sight 13 days of April last year.....	95,807	
Brought into sight 13 days of April year before last.....	126,756	
Northern spinners' takings this week.....	21,841	
Northern spinners' takings same seven days last year.....	10,759	
Increase in amount of crop brought into sight to date over last year.....	790,043	
Decrease in amount of crop brought into sight to date under year before last.....	1,565,090	
Increase in supply since September 1 over last year.....	567,048	
Increase in foreign exports since September 1 last year.....	989,703	
Decrease in American spinners' takings since September 1 under last year.....	275,939	
Decrease in American stocks under last year.....	147,556	

Notes.

THE directors of the new Statesville (N. C.) Cotton Mill Co. held a meeting on April 12, when it was decided to place the order for the rest of the machinery at once; some machinery has already been installed. Only looms will be put in, and it is now contemplated to put in 200 at the start, instead of fifty, as was at first proposed. In two months the plant will be in operation.

WORK on the large cotton-duck mill of the Columbia Mills Co., on the canal at Columbia, S. C., is rapidly nearing completion. Nearly all the machinery for the power plant has already been received.

THE stockholders of the Union Cotton Mill, at Maiden, N. C., held their annual meeting on the 5th inst., electing D. M. Carpenter, president, and J. W. Williams, treasurer. The same board of directors was again chosen, with the exception of L. L. Jenkins, who was succeeded by J. A. Foil. A new superintendent will be secured by the president.

THE Courtenay Manufacturing Co., which is now building a cotton mill at Newry, S. C., has increased its capital

stock from \$150,000 to \$200,000, and notice to that effect has been filed with the secretary of state. Capt. W. A. Courtenay, of Charleston, S. C., is president of the company.

THE cotton mill of Messrs. Morrison, Gaither & Co., at Eagle Mills, N. C., was entirely destroyed by fire on April 12, causing a loss of more than \$30,000. The plant will probably be rebuilt at once.

MR. R. C. RIGHTMIRE's hosiery mill, at Tallapoosa, Ga., is now turning out 200 dozen hose daily, and preparations will shortly be commenced for increasing to 350 dozen. Several new machines have lately been added and more will be put in; dyeing and drying departments are also being fitted up.

THE Porter Manufacturing Co., of Clarks-ville, Ga., intends to enlarge its rope plant and will shut down while so doing.

THE Crowley Manufacturing Co., of Charlotte, N. C., has decided to build an addition to its weaving mill and add from eighty to 100 new looms. This mill was started nearly a year ago, making towels and counterpanes, and it has been so successful that an enlargement is required. The additional machinery has already been contracted for, and work on the new buildings will be begun in a few weeks. The addition will give the company an equipment of 175 looms.

Galveston's New Compress.

Arrangements have just been completed at Galveston, Texas, for the establishment of an extensive cotton-compressing plant, and work on it will be commenced at once. Messrs. W. L. Moody & Co., the bankers and cotton factors, will own and operate the compress, and contract has been let for its erection to Will W. Bierce & Bro., of Montgomery, Ala., who build compressing plants of the Taylor pattern. An excellent site, with river and railroad facilities, has been leased from the Galveston Wharf Co. About \$200,000 will be invested in the whole plant. Two corrugated-iron warehouses, each 400x140 feet, will be built; also brick compress building 150x50 feet. The compress proper will be of 2000 tons capacity, so that a bale of cotton from this press will weigh thirty pounds per cubic foot. An electric light plant will also be installed. It is claimed by cotton men that the new compress will increase Galveston's receipts of cotton by about 250,000 bales.

Literary Notes.

IN the May number of the Forum Edward Atkinson writes "The True Interpretation of Farm-Mortgage Statistics," explaining in full for the first time the results of the census investigation. So far from proving disaster, these statistics show great thrift and prosperity. The remarkable fact is brought out that 21 per cent. of mortgages on real estate in the whole Union is on property in and adjacent to New York city.

A GREAT Grant number, apropos of General Grant's birthday, is announced by the editors of McClure's Magazine for May. With an unequalled series of portraits of Grant, covering the whole term of his manhood from his cadetship at West Point to his closing days at Mount McGregor, will be presented a series of studies and reminiscences from his son, Col. Frederick D. Grant, and his friends and fellow-soldiers, Gen. Horace Porter, Gen. O. O. Howard and Gen. Ely S. Parker. An autograph letter by General Grant's father, written in 1865, giving new glimpses into the General's career and character, will appear in fac-simile.

IT is reported that a steamship line is about to be established between Apalachicola, Fla., and New Orleans by H. A. Simmons and others interested in the Florida lumber trade.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The Markets for Cottonseed Products.

NEW YORK, April 17.

A substantial and well-defined advance in prices of cottonseed oils has been secured in this market since our last report. For prime crude 29 cents, in barrels, is easily obtainable here, and 33 cents has been paid for prime summer yellow. But aside from the purchases made by some of the larger companies on basis of the advanced prices, there is not much new to the situation. Export business is as dull as ever, and European buyers seem to take absolutely no interest in the fluctuations of prices on this side. Stocks of refined oil in this country are fairly large, but crude is in small supply. The quality of crude, too, has deteriorated very much of late. Strictly prime lots are becoming scarce. What is classed as choice crude under the recently adopted New York Produce Exchange rules is, at the present advanced state of the season, practically unobtainable anywhere in the South. A bid of 34 cents for choice crude, May delivery, here recently made, is, therefore, more significant of a statistical fact than any urgent want for such oil at that price. At the South 24 cents has been paid for prime crude loose at the mill. The following prices are for barreled oils on the spot: Prime crude, 29 cents bid; off crude, 27 cents bid, 26 to 27½; prime summer yellow, 33 to 33½; off summer yellow, 31 cents bid; prime summer white, 35 cents bid; prime winter yellow, 37½ cents; choice summer yellow, 34 to 36 cents; cottonseed soap stock, 1½. Cottonseed meal is dull at from \$21.00 to \$23.50 ex dock here, according to quality.

ELBERT & GARDNER.

NEW ORLEANS, April 16.

The New Orleans cottonseed-product market the past week has continued very firm in all departments, and crude oil has advanced steadily. The packers, despite their recent "bearish" utterances, show a disposition to pick up any lots that the mills are inclined to let go on a basis of about 23 to 24 cents loose f. o. b. Texas. Refined oil is scarce in this market, there being none to be had except a few small lots of an off grade. We quote the market here as follows: Prime crude loose f. o. b. at mills, 25 to 26 cents; prime meal jobbing at depot in carload lots, \$19.50 to \$20.00 per ton of 2000 pounds; prime meal per ton of 2240 pounds f. o. b. for export, \$21.50 to \$21.75; cake per ton of 2240 pounds f. o. b. for export, \$21.50; foots, 1½ to 1¾ cents; soap stock, 1½ to 1¾ cents; linters—A, 3½ to 3¾ cents; B, 3 to 3½ cents; C, 2½ to 2¾ cents, according to style and staple. JAMES RAINEY & CO.

ROTTERDAM, April 2.

The market for cottonseed oil remains very quiet, but the prices are not lower. It seems that prices have reached the bottom now. America is cabling firmer reports, and therefore the tendency of our market is also better, and the general belief is that prices will be steady, or perhaps will go up a little. The weather has been very mild during the past winter, or rather during the winter season, as we have had almost no winter. It has frozen only a few days the past season, and in January the thermometer showed 40°, even 50°, Fahrenheit. The weather in March has been as it is in May or in June in other years, and now the thermometer shows every day 65° Fahrenheit. The consequence is that the butter-makers could not mix so much cottonseed oil as they usually do. The arrivals of cottonseed oil from America during March are as follows:

March 5, from New York, steamship Loch Etire, 2223 barrels; from Baltimore, steamship Urbino, 300 barrels; March 6, from New York, steamship Obdam, 910 barrels; March 14, from New York, steamship Amsterdam, 240 barrels; from New Orleans, steamship Cilurnum, 7000 barrels; March 15, from New York, steamship Loch Lomond, 2548 barrels; March 19, from Baltimore, steamship Calitro, 550 barrels; March 22, from New York, steamship Maasdam, 1275 barrels; March 24, from New York, steamship Zaandam, 600 barrels; March 27, from New York, steamship Winchester, 125 barrels; March 29, from New York, steamship Dubbeldam, 455 barrels; total arrivals in March from America direct, 16,226 barrels. In January 21,204 barrels arrived from America; in February 25,555 barrels, and in March 16,226 barrels—together, first three months of the year, 62,985 barrels. From or via England 2005 barrels arrived in March, and during the first three months 6077 barrels. From or via Amsterdam, Antwerp and other continental places some thousand barrels have arrived, so the total arrivals of cottonseed oil in Rotterdam during the first three months will amount to about 75,000 barrels. The stock in warehouse amounts to about 30,000 barrels, of which quantity about 20,000 barrels are sold and already in the hands of the butter-makers. The market for oleo oil is also considerably firmer, in sympathy with the better tendency of the lard markets. Large quantities oleo oil have been sold at a basis of 58 guilders for choice lots. The arrivals in Rotterdam in March amounted to 23,715 tierces, and during the first three months to 54,211 tierces oleo oil. The arrivals of lard and of neutral lard are important; in March 20,613 tierces arrived, and in January-March 51,561 tierces. This is quite a quantity, but only a few thousand tierces are still in stock. The demand for butterine has been more active and England is sending large orders. Of course, our market for cottonseed oil will follow the American markets, but it seems now that there is more chance that prices will advance than that they will further decline.

G. W. SANCHES.

Cottonseed-Oil Notes.

THE cotton oil-mill at Navasota, Texas, will have its own water-works system. A standpipe 110 feet high and twelve feet in diameter is being erected.

A MEETING of the directors of the Yoakum Cottonseed Oil Co., of Yoakum, Texas, was held in that city on 12th inst. Sufficient money was subscribed to complete the mill and have it ready for business the coming season.

MR. E. VAN WINKLE, of Atlanta, Ga., who proposes to build a cottonseed-oil mill at Fort Worth, Texas, visited that city last week. He has inspected the proposed site on the north side of the city, and is much pleased with the outlook for a mill. He considers Fort Worth one of the best locations for a mill, and if the business men of that city offer the necessary encouragement the plant will be erected.

A PORTION of the old fair grounds at San Antonio, Texas, is to be utilized for the location of a large cottonseed-oil mill. Messrs. Hugo, Elmendorf, Schryver, Kampman, B. F. Voakum, Andrews and Lott own the property, and it is understood that they have arranged with some parties from the East, in connection with a Houston oil mill, to establish a plant on the fair-grounds property. The construction and operation of this enterprise will give employment to a number of men, and the work will be proceeded with in a short time.

CONSIDERABLE feeling was created, especially among Southern members, by the announcement that the German Bundesrath had unexpectedly resolved to raise the duty on cottonseed oil. This measure, if

accepted by the Reichstag, prohibits cottonseed oil in Germany, and compels poor classes to use dearer food. It is said that Americans should consider whether, in consideration of this action in reference to this important product, we should modify our tariff favoring Germany. Already influential members from Southern States contemplate vigorous action thereon in Congress. They say they can restore the duty on Germany's beet sugar.—Washington Post.

A MEETING of the Palestine Cottonseed Oil Co. was held on the 10th inst. at Palestine, Texas, when the following directors were elected: F. Hufsmith, H. Ash, N. R. Royal, E. W. Link, S. Mair, A. F. Fox, G. R. Cook, G. W. Burkett and B. H. Garner. G. H. Cook was elected president, and Henry Ash, vice-president. The mill closed its operations last week for the season. Notwithstanding the high prices paid for seed the operations were satisfactory, although the profits were not as large as expected. The mill has a capacity of 30,000 to 35,000 gallons of oil per day, and crushed during last season about 5000 tons of seed.

IN THE MANUFACTURERS' RECORD of March 16 it was reported that Mr. George C. Walsh, of Temple, Texas, and others were seeking to organize an association of cottonseed-oil-mill superintendents. Arrangements for this association have now been completed, and a meeting will be held in Waco on May 2. Reduced rates have been secured from hotels and railroads. In order to secure the benefit of the half-fare railroad tickets delegates must procure from the railroad agent at starting point a certificate, also one from the agent of other lines over which they travel, showing that full fare has been paid. These certificates must be surrendered to the secretary of the association before the close of the meeting for his signature in order to obtain the return tickets. Mr. Walsh writes the MANUFACTURERS' RECORD that it is earnestly desired that every oil-mill superintendent in the State will attend the meeting, and while superintendents only will be eligible to membership, managers of mills are also invited to come when the superintendents cannot be there. The managers of the cotton-oil mills of Texas will meet at Waco on May 10.

BUSINESS CONDITIONS SOUTH.

Extracts from Letters to the Manufacturers' Record.

Greensboro, N. C.—Greensboro Furniture Manufacturing Co.: "Most of our goods are going to New England and New York. We have plenty of orders. Collections are slow. Think the prospects for trade and business are getting better."

Augusta, Ga.—Dan J. Murphy: "General outlook for business for Augusta and vicinity is very encouraging, indeed. There is plenty of money here waiting good investments."

Americus, Ga.—Consumers' Ice Co.: "The general prospects for the manufacturers are very blue on account of the recent cold weather killing the fruit crop, which is quite an important outlet for ice makers."

Meridian, Miss.—Meridian Pottery & Manufacturing Co.: "Business quiet, due to the general depression in money circles."

San Antonio, Texas—American District Telegraph Co.: "Times are hard and money scarce, but in the face of that fact we have a new railroad—the Gulf Shore—an assured fact, and the road from here to Brownsville is to be pushed by some of our wealthiest and best firms, so that we will without doubt have two railroads under construction within ninety days."

Buchanan, Va.—West Buchanan Canning Co.: "The general outlook is rather gloomy. Owing to the unsettled condition of things and the general freeze, we will only can

tomatoes and snap beans this season; fruit is all killed."

Neelyville, Mo.—H. F. L. Rummel & Son: "The general outlook for business in our line (lumber) is dull and discouraging, for which reason we are moving a little slow."

Wheeling, W. Va.—Wheeling Steel & Iron Co.: "Business prospects still very gloomy; hope keeps us alive."

Parsons, W. Va.—A. L. Lipscomb: "Business is brightening up nicely."

Petroleum, W. Va.—R. H. Rutherford, of Cairo Manufacturing & Lumber Co.: "Business improving; orders are more plentiful; prices are much lower."

Suffolk, Va.—L. P. Harper: "The outlook much better; new foundry to be established and all mills now in operation; splendid opening for manufacturers—free sites, four trunk lines, two local roads and water transportation."

Winston, N. C.—Lanier Printing Co.: "The outlook for business is much brighter than for the last year. Factories that were closed down the whole of last season are starting up with full force. New concerns (tobacco manufacturers), Brown & Williamson, Samuel Blackburn & Co., Kerner Bros."

GENERAL NOTES.

Brief Mention of Various Matters of Current Interest.

A DISPATCH from Dallas, Texas, states that there are six feet of water in the Trinity river, and that it is now navigable to its mouth. Two steamers are already plying on it and doing a good business.

REAL estate is quite active in the vicinity of Claremont, Va. C. V. Brister, an extensive stock-raiser in Pennsylvania, is about to purchase land for a stock farm. A company is also being formed to develop a tract of land in the suburbs.

A DISPATCH from Pittsburg, Pa., states that a large number of Hungarians and Slavs are being sent from that section of the State to work in Texas cotton fields. An agent from Texas is paying for their transportation.

WILLIAM WALKER has begun the publication of a semi-monthly journal at Jacksonville entitled "Florida." It is to be devoted to the resources and development of the State.

THE extensive pipe works, foundry and machine shops of the Glamorgan Company, at Lynchburg, Va., which were destroyed by fire last week, will be rebuilt at once, the directors having so decided at a meeting held on Monday last. Mr. H. E. McWane, president of the company, was instructed to have plans and specifications for the new plant prepared as soon as possible, and to call a meeting of stockholders to pass upon them. The new buildings will be constructed of brick and iron, and the pipe-works department is expected to resume operations within six weeks. The old plant was valued at \$100,000.

To Pull Out of Debt.

The perseverance of the Southern farmers, which is making such a material improvement in their condition, is indicated by the following report from Orangeburg, S. C., which was seriously affected by the Tillman dispensary disturbances: "Everything has about quieted down now, and our citizens are once more going about their usual avocations. The farmers have gotten down to hard work. Very few are seen in town these days. They are too busy to waste time loafing around town and talking politics. They have settled down for business, and the sound of the 'gee-haw' man can be heard from early dawn until dewy eve. The farmers seem to have resolved in their minds to pull out of debt this year."

PHOSPHATES.

TENNESSEE PHOSPHATE BEDS.

How the Beds Are Found and the Probable Extent of the Paying Rock.

[Paper read by Dr. J. M. Safford at a meeting of the Engineering Association of the South at Nashville.]

The phosphate beds of middle Tennessee, now attracting so much attention, are found interstratified with the rocks of the highland or plateau country lying west of the meridian of Nashville and between that and the Tennessee river. They are met with in all the counties within the limits mentioned. Their geological horizon or position is a very definite one, well marked and easily found. They have thus a wide range and a definite stratigraphical place over a great territory, but it must not be understood that they are everywhere thick and good enough to be worthy of consideration.

Over much of the territory they occur in traces a few inches in thickness, or they are too much mixed with sand, or even run wholly into sandstone. It is only in certain favored regions, yet locally extensive regions, where they occur in sufficient volume to be made available for mining purposes. In some of these we would appear indeed to have real bonanzas of phosphate rock.

THE GEOLOGICAL RELATIONS.

But a word here is necessary as to the geological relations of the phosphates. There are two distinct beds of the phosphates—one above a stratum known as the black shale, the other below the shale. The one above is a bed or layer of concretionary masses, balls and kidney, and knee-shaped forms from the size of walnuts to that of a man's head. These are sometimes loosely disposed in a greenish or bluish shale, and sometimes tightly packed together like so many cannon balls in a layer eight or ten inches thick. Ordinarily, the layer has less thickness, often, in fact, being represented by only a few scattered concretions.

But thick or thin, it may be said to be universally present, its "kidneys" serving to indicate the place of the black shale and the underlying bed when these are concealed by debris or soil.

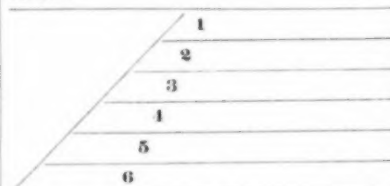
The other phosphate, that underlying the shale, and the most important of the two, is, in its best presentations, a well-defined continuous stratum of dark-bluish or bluish-black, rarely grayish, rock with fine or coarse grain. Its regularly stratified character and its dark color makes it look for all the world like a bed of stone coal. This comparison is a good one and gives a satisfactory idea of the way it lies; indeed, of the manner in which it will have to be mined.

HORIZON OF THE PHOSPHATES.

The black shale which lies between the two phosphate beds is found, as a rule, in its proper place or horizon in all the counties. It is rarely absent or wanting. It is nearly black, contains some bituminous matter, and flames up when thrown upon live coals very much as a piece of porous brick would that had been soaked in coal-oil. Owing to these properties it has been considered by persons ill-informed on the subject to indicate or to be the "blossom" of stone coal. Hence it has been shafted and tunneled and pitted in a thousand places in Tennessee for coal, with much expenditure of muscle and money, and all to no purpose. This black shale is far older than the coal. It runs, in its easterly extension, under the Cumberland mountain and 1000 feet below the lowest coal. And this brings out the age of the phosphate beds, for they and the black shale go together. All three pertain to the same Devonian period.

A TYPICAL SECTION.

The following diagram, representing a typical section, will make clearer the mutual relations of all the formations concerned:



No. 1. This, the uppermost formation of the section, is a great body of bluish shale which has been named Harpeth shale. It is of subcarboniferous (Mississippian) age, is 150 feet or more in thickness and makes up the middle portion of the hills in Lewis, Hickman and well-nigh all the counties of this belt.

No. 2. The upper phosphate bed, the balls and kidneys. This has been sufficiently spoken of. We only add that analysis of this material, made by various persons, shows a range of from 60 to 77 per cent. of bone phosphate.

No. 3. The black shale of which we have spoken. It ranges in thickness from a mere trace or nothing to ten feet.

No. 4. This represents a local layer of bluish shale containing phosphatic kidneys. I have seen it three and four feet thick. Its occurrence, however, is exceptional.

No. 5. This is the lower phosphate bed and the one having most importance. I add to what has been said that its material often shows under the magnifier points of pyrites. The coarse-grained varieties under the same conditions abound in small seed-like bodies or fragments of a compact phosphate, and also show as a rule a small spiral shell, and now and then a fish tooth or a fragment of a fish bone.

THE LOWER PHOSPHATE.

The thickness of this lower phosphate, which I have compared to a coal bed, ranges from a few inches to fifty-two inches, or to something more than four feet good phosphate rock. This latter thickness of rock I have not seen, but it came to me from a very reliable source, a gentleman well posted in the character of Tennessee phosphate rock, and I have no doubt as to its correctness. The thickness I have myself seen is three feet.

No. 6. This division, underlying all and generally occupying a low position in the valleys, is limestone, in some places of Niagara age, in others of Hudson or Nashville. This completes the series of formations. Nos. 2, 3, 4 and 5 are Devonshire. No. 6 is Silurian.

It is asked how much territory of available phosphate have we? That is a question I cannot as yet fully answer. There is doubtless a great deal of poor ground, and yet much that is good. A large part of the field remains to be more thoroughly investigated. This will soon be done, for there is an army of phosphate hunters in the field, and if they meet with good territory we shall soon know it. There is not the same uncertainty about the phosphate here as obtained in Florida. The surveying of our phosphate is like the surveying of a coal bed in a coal field. It is done by examining the outcrops of a well-marked stratum. The quantity also in a given tract is a matter of definite calculation, as in the case of coal.

THE BEST PHOSPHATE REGIONS.

As an example of one of the best phosphate regions, if not the very best, let us take the Swan Creek valley, in Lewis and Hickman. Here we have good reason to believe the phosphate of good quality will average not less than three feet over an area twenty miles long by four wide, making eighty square miles in all. A cubic yard of the material, if I mistake not, will weigh two tons. Now with pencil and paper you can calculate the number of tons

the eighty square miles will yield, and what the profit will be at the low figure of \$1.00 net per ton. Analyses show this phosphate to contain from 60 to 75 per cent. of bone phosphate.

PRACTICAL WORKINGS TESTED.

The practical working of it has been tested by the National Fertilizer Co., of Nashville. In a letter of April 3, 1894, addressed to me, Mr. W. G. Sadler, the secretary, says:

"We have given the phosphate rock a practical test, and find that it grinds nicely, and when acidulated or mixed with sulphuric acid shows a very high per cent. of available phosphoric acid, richer than we have ever gotten from South Carolina rock and equal to the highest grade from Florida. The mechanical condition of the finished goods is splendid. We regard it as a most valuable find."

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, April 19.

In the phosphate market the tone of business is unchanged, and the demand from manufacturers of a moderate character. At points of production business is looking up, and in South Carolina there is considerable activity among land miners. Shipments of rock from Florida ports for the month of April will be heavy, and the output at different mines is increasing. Prices are generally firm, and we quote as follows: South Carolina rock, \$4.75 to \$5.00 for Charleston; \$4.50 to \$4.75 for Ashley river, and \$5.00 for Ashepoo, S. C., all f. o. b. Florida rock is quoted \$4.25 for 60 per cent. river pebble, \$4.75 for 65 per cent. and \$5.00 for 70 per cent., all f. o. b. Charlotte Harbor or Tampa. The arrivals of phosphate rock during the week were as follows: Schooners Mary S. Bradshaw, from Ashley river, S. C., with 510 tons; Blanche Hopkins, from Charleston, S. C., with 875 tons, and Emma C. Middleton, from Ashley river, S. C., with 667 tons. A. L. Taveau & Co. report phosphate charters of schooners E. L. Cottingham, Charleston to Baltimore, and Jennie S. Butler, Port Tampa to Baltimore.

FERTILIZER INGREDIENTS.

The general market has been fairly active during the week, especially for tankage, which is decidedly firmer on account of the demand from other points for ammoniates. In nitrate of soda prices are firm and higher, with light stocks at the main distributing centres. Blood is very steady, and azotone is firm and higher.

The following table represents the prices current at this date:

Sulphate of ammonia.....	\$3 37 1/2 @	\$3 62 1/2
Nitrate of soda.....	2 45 @	2 50
Hoof meal.....	2 25 @	—
Blood.....	2 35 @	2 40
Azotone (beef).....	2 45 @	2 50
Azotone (pork).....	2 45 @	2 50
Tankage (concentrated).....	2 25 @	—
Tankage (9 and 20).....	\$2 10 and 10 cts.	—
Tankage (7 and 30).....	19 00 @	20 00
Fish (dry).....	25 00 @	26 50
Fish (acid).....	18 00 @	20 00

CHARLESTON, S. C., April 17.

The tone of the market here continues firm, and the numerous inquiries made indicate a good demand. The prices quoted are \$4.25 to \$4.50 for crude, \$5.00 to \$5.25 for hot-air dried, and \$6.50 for ground rock, all f. o. b. Charleston. The coastwise shipments for the week were per schooners Josephine, 1000 tons for Norfolk, Va.; Lida J. Lewis, 800 tons for Philadelphia; Isaac H. Lillyer, 800 tons for Baltimore; Maggie J. Lawrence, 551 tons for Richmond; Fannie Reiche, 648 tons acid phosphate for Norfolk; T. W. Dunn, 1000 tons acid phosphate for Boston, Mass.; Ada Bailey, 800 tons pyrites cinder for Philadelphia, Pa., while in port and loading are the Rillie S. Derby, for Philadelphia; Bertha F. Walker, W. W. Converse and Chas. Schmidt, for Baltimore. The coastwise shipments from September 1, 1893, to April 14, 1894, were 72,612 tons, against 65,345 tons for same date last year.

The steamship Endsleigh is loading 3000 tons of rock at Pinckney's works for France. This is the first cargo of land rock sold from this part of the continent in the past eight to ten months.

Phosphate and Fertilizer Notes.

THE British steamship Siedmire sailed from Fernandina, Fla., on the 8th inst. for Stettin, Germany, with 2330 tons of phosphate. She was loaded by the Anglo-Continental Guano Works.

A PARTY of prominent Charleston capitalists were in Blacksburg, S. C., last week making preliminary arrangements for a fertilizer factory in that city.

THE Wilcox & Gibbs Guano Co., of Savannah, Ga., has commenced rebuilding its factory. The buildings are to be substantially the same as those burned, except that the walls will be heavier and as near fire-proof as they can be made.

THE McAfee Raw Bone Phosphate Co. of Baltimore, for the purpose of manufacturing fertilizers, has been incorporated by John Q. McAfee, Michael T. Dorsey, W. J. McGraw, John S. Dorsey and Charles H. Miller with a capital of \$20,000.

THE New York Hard Rock Phosphate Co., at Inverness, Fla., has just brought in a lot of hands and implements preparatory to commencing operations on the Purnell tract, a mile and a-half from the town.

BIGGS & Co., near Inverness, Fla., have just leased a part of their land for mining purposes, and the lessees will soon put in a large force of hands.

THE Early Bird Phosphate Co. is building a line of railroad one and a-half miles long to connect its plant with one of its outlying mines. The road will be equipped with first-class locomotives and freight cars.

THE Pebble Miners' Association held a meeting at Bartow, Fla., on the 4th inst., President Lay in the chair. There was a good attendance, and much interest was manifested in the proceedings. Transportation was the principal topic of discussion, and a committee consisting of Messrs. Lay and Codington was appointed to look into the matter and report.

THE Hamburg Phosphate Co. is now ready for the shipment of 5000 tons of rock, which will go forward to European ports at once.

THE opening of a phosphate mine by the York Phosphate Co. near Leroy has made business quite lively in that town, and many improvements are in progress.

THE Standard Phosphate Co., near Archer, Fla., is putting up a first-class store building at Standard Junction to supply its mines.

THE phosphate business of the port of Fernandina, Fla., will be very heavy for the current month, and the shipments will likely be the largest in the history of the phosphate industry in Florida. The fleet of vessels at present in port will take a total of 18,200 tons. The schooner Addie Charleson and the British steamship Siedmire and Westwater have sailed. The cargo of the Westwater consisted of 3000 tons of phosphate, being the largest which has ever passed through this port. She went to sea drawing twenty feet. During the balance of the month the following vessels will load with phosphate: British steamship North Flint, with 2900 tons by the French Company, for Gottenburg and Stockholm; British steamer Beechdene, with 2000 tons from the Illinois Phosphate Co.'s mines, which goes to Rotterdam; British Steamship Borghese to H. Louis de Rhone, with 1000 tons from the Anglo-Continental Guano Works; British steamships Ernest and Henrietta H., with 2000 each for B. Arentz & Co., for Hamburg; British steamship Sydenham, with 2500 tons of Jacksonville Pebble Co.'s phosphate. The Baltimore City and Feliciana will each take 2000 tons for the Dunellon Company, and the steamship Caria will take for the French Company a large cargo.

steamer took out 22,500 feet of pitch-pine lumber and 1297 bundles of shingles, and the Boston steamer 28,400 feet of pitch-pine lumber.

Pensacola.

[From our own Correspondent.]

PENSACOLA, Fla., April 17.

The movement in lumber and timber during the past week has been lighter than usual, and the market is quiet. There are a number of good orders, however, in sight, and the probability is that the month of May will show a considerable increase in shipments. The demand from Northern ports is a shade better, and all desirable dimensions of lumber are in fair request. There is a good deal of building in progress in and around the city, and a considerable quantity of material will be required. The foreign movement in timber is not as heavy as usual, but for lumber the demand is better. Among the clearances of lumber and timber for the week were the following vessels: Ship Vanadis, for Dordrecht, with 669,000 feet of lumber and 31,000 feet of sawn timber; bark Neptune, for Fleetwood, with 13,000 feet of lumber and 763,000 feet of sawn timber; the schooner Carrie A. Norton cleared for New York with 400,000 feet of lumber, and the German bark Elise, for Schiedam, with 594,000 feet of lumber. The total clearances for the week aggregated about 2,360,000 feet of lumber and 2,800,000 feet of sawn timber. The lumber and timber freight market is quiet and steady, and rates remain as previously quoted. Current rates are £4 15s. and £4 17s. 6d. United Kingdom or Continent, and £5 might be done for small vessels.

Beaumont.

BEAUMONT, TEXAS, April 16.

The market in the long-leaf yellow-pine territory has improved slightly during the past week, and all are hopeful for an active spring and summer trade. During the week a few timber bills were placed, and some orders for export were booked for the West Indies and Mexico. Aside from the actual business of the week, the meeting of the Lumbermen's Association at Dallas, Texas, has been the leading topic among millmen. The business transacted by the convention was quite important, and covered a number of matters connected with the lumber industry. There are many signs of a healthy development of trade with the east Atlantic coast, and not the least of these was the clearance of the four-masted vessel Daniel Fearing last week with nearly 1,000,000 feet of railroad ties from Sabine Pass for Philadelphia. The schooner Anna E. Kranz arrived at Sabine Pass last week, and will also take on 500,000 feet of lumber for Philadelphia. The export trade is certainly improving, and the record of shipments for the current year will likely be a very creditable one. At Orange, Texas, and Lake Charles, La., there is some activity, and the market is steady, while mills are fairly well supplied with orders. The new milling plant of A. Gilmer is nearing completion, and when finished it will contain edgers, trimmers, lathe, picket and cut-off mills that will give it a capacity of 125,000 feet per day of eleven hours at a minimum cost. The prospects for getting out cypress timber for the shingle mills have been good, and from Logansport to Sabine town the river is full of cypress timber. It is estimated that about 50,000 logs are coming down on this rise. The shingle market has been very quiet of late, with stocks light.

Mobile.

[From our own Correspondent.]

MOBILE, ALA., April 16.

The tone of business in nearly every branch of the lumber and timber industry seems to show a slight improvement. While the volume of business in timber is somewhat contracted, the outlook is more encouraging, as the European markets are

improving, and it is expected that shipments will steadily increase. Hewn timber is steady; when placed upon the market will bring about 10½ to 11 cents per cubic foot for 100 feet average and classing B1 good. There is no demand for hewn oak, and but a light inquiry for poplar. Sawn timber is firm at 11½ to 12 cents per cubic foot, basis of forty feet average. The clearances on Saturday last were as follows: 676,284 superficial feet for Falmouth, England, and 393,797 superficial feet for London. The lumber market continues to improve, and reports from saw mills, both here and at interior points in this State and Mississippi, are more encouraging. Prices continue low, without much signs of an advance, but at current quotations the market is fairly active and very steady with a good demand. The foreign trade in lumber continues to show a better business, and for the United Kingdom and Continent there is a very fair inquiry. Trade with Central America, the West Indies and Mexico is very good at present, and during the past week the foreign exports of lumber aggregated over 2,000,000 superficial feet, and since September, 1, 1893, they aggregate 42,679,714 feet, against 50,828,208 feet for the corresponding period last year. There is a fair demand for cypress shingles and the market is steady, the clearances for the week being about 400 bundles. Lumber and timber freights remain steady and unchanged, with rates to the West Indies at \$5.00 to \$6.00 per thousand feet, and coastwise \$5.25 to \$5.75; Rio Janeiro \$12.00 in gold and Mexico \$7.50 to \$8.00. Timber to the United Kingdom is quoted at 28s. to 30s. per load for hewn, and £4 7s. 6d. to £5 for sawn. Steamer rates are quoted at £5 10s. to £5 12s. 6d.

THE Roanoke Railroad & Lumber Co., at Money Point, near Norfolk, Va., whose plant was so recently damaged by fire, will be running again inside of thirty days.

THE Mountain Lake Lumber Co., of Bluefield, W. Va., has been incorporated with a capital stock of \$1,000,000. The incorporators are Frank Woodman, W. O. Daum and C. H. Hatcher, of Charleston, W. Va.; John Sweet, of Big Rapids, Mich., and John Sweet, of Chicago.

A Strong Stock.

The strength of Baltimore & Ohio stock in the market has called forth the following comment from Kiernan's News Letter: "The activity and strength of Baltimore & Ohio stock of late has excited a good deal of interest. It has shown a steady advance and on buying that is credited almost entirely to investments. It has not been a favorite with speculators, because they have found it under a conservative and non-speculative management, which would not lend itself to any of the speculative tricks so prevalent in many cases. The company has maintained its credit in Europe and suffered less during the recent financial troubles than most roads whose stock was largely held abroad. Its physical condition has been maintained up to the standard, and it has not suffered by reason of a too rigid economy. Mr. A. A. H. Boissvain has long been known as partial to the stock. He says, in speaking of its steady rise: 'People are beginning to realize that the Baltimore & Ohio is one of the solid, first-class properties in the country. They are awakening to the fact that it is a 5 per cent. dividend payer, and likely to continue so for all time to come. It has been quick to feel the revival of business and confidence. It is being steadily absorbed by investors both here and at London. It is this buying that has caused the appreciation in the price of late.'"

THE Reaves Warehouse Co., at Athens, Ga., has made an assignment, with liabilities estimated at \$300,000 and assets at \$200,000.

FINANCIAL NEWS.

The Rise in Southern Securities.

While the average price of stocks and bonds has increased perceptibly within the last three months, the increase in value of Southern securities is especially noticeable. Taking the group of thirteen active Southern stocks listed at the New York Exchange, we find that the average increase from the lowest point reached in 1894 to April 13 is five and eight-thirteenths points, in spite of the fact that Louisville & Nashville has been the object of a series of bitter attacks by the "bear" element, while other railroads have suffered from special causes. The Baltimore & Ohio leads the list with a rise of thirteen and a-half points, the last quotation being since the loan of \$8,000,000 was negotiated. This indicates how firmly the stock is held. But the most notable increase is in Richmond Terminal securities, which have risen seven and a-quarter points, or over 400 per cent., from the fact that reorganization has begun. East Tennessee, Virginia & Georgia has been quoted at four and a half. In January it was practically worthless. The publication of the Missouri Pacific's statement has so increased confidence in it that a gain of nearly twelve points is indicated. Louisville & Nashville has gone up ten points, largely by reason of foreign buying, and this despite the heavy decrease in its monthly earnings. Tennessee Coal & Iron, representing the largest industrial corporation in the South, has gained four points.

Out of seven active bond issues dealt in at the Baltimore Stock Exchange we find an average from January 5 to April 13 of four and six-sevenths points. Not one of these securities has depreciated in value. While the gain in single instances is not as much as in the stock values, all are firmly held and have commanded comparatively high prices throughout the money stringency. Virginia 3 per cents of the new issue are considered especially desirable, and have reached 71½, a remarkably good price.

Below will be found tables showing the increase in stocks and bonds, the former being found in the first list, with the lowest bid in 1894 in the first column:

Stock.		April 13	Gain. Points.
Baltimore & Ohio.....	67	80½	13½
Chesapeake & Ohio.....	16½	19½	3½
East Tenn. Va. & Ga.....	3½	4½	1
Illinois Central.....	89½	94	4½
Louisville & Nashville.....	40½	50½	10
Missouri, Kansas & Texas.....	12½	16½	4
Missouri Pacific.....	18½	30½	12
Mobile & Ohio.....	15½	15	0
Nash. Chat. & St. Louis.....	70	74	4
Norfolk & Western.....	5½	7½	2
Richmond Terminal.....	2	9½	7½
Texas & Pacific.....	7	9½	2½
Tennessee Coal & Iron.....	14½	18½	4

Bonds.	Bid Jan. 5.	Bid April 13	Gain.
Atlanta & Charlotte.....	110	117½	7½
Char. Colum. & Augusta.....	98	104	6
Ga. Caro. & Northern.....	85	93½	8½
Piedmont & Cumberland.....	97	99	2
Virginia Midland 1st 6s.....	110	113	3
West Virginia Central 6s.....	103½	107½	4
Virginia State 3s.....	68	71½	3½

Augusta Bonds at a Premium.

The issue of \$104,000 worth of 4½ per cent. bonds, advertised for sale in the MANUFACTURERS' RECORD by the city of Augusta, Ga., has been sold at a premium. So much interest was excited in the matter that a large number of bids were secured. Among these were represented the Mercantile Trust Co. of Baltimore; W. H. Patterson & Co., of Atlanta; Simon Borg & Co. and N. W. Harris & Co., of New York; E. H. Rollins & Son, of Boston; W. J. Hayes & Son, of Cleveland, Ohio, and the Mutual Life Insurance Co. of New York. W. J. Hayes & Son took the issue at a premium of \$1310.

The number of bids and their amount

show how willing are outside capitalists to take approved Southern securities when brought to their notice by judicious advertising.

New Financial Institutions.

The Bank of Rocky Mount has been purchased from the Westray estate by a syndicate composed of Messrs. R. H. Ricks, James H. Ruffin and Thomas H. Battle, all residents of Rocky Mount. A reorganization has been effected with a cash capital of \$25,000 and a stock liability of \$25,000 more. The capital will be increased as needed. The new officers are: Thomas H. Battle, president; R. H. Ricks, vice-president, and L. F. Tillery, cashier.

The Fidelity Life & Accident Insurance Co. has been organized at Atlanta, Ga., with \$200,000 capital.

The Seguin (Texas) Building and Loan Association has been organized with H. Krezdorn, president, and J. M. Blanks, secretary.

The Consolidated Building, Loan & Trust Co. has elected A. D. Garden, president, and S. Alexander, treasurer, all of Wheeling, W. Va.

The Atlanta Trust & Banking Co. and the Southern Banking & Trust Co. have been consolidated under the name of the former corporation. W. A. Hemphill will be president; H. M. Atkinson, vice-president, and J. A. McCord, cashier.

The Enterprise Serial Building Association has been organized at Washington, D. C., by David Murphy, N. H. Shea and others.

New Bond and Stock Issues.

The Seaboard & Roanoke Railroad Co. has issued \$500,000 additional of its first mortgage 5 per cent. 40-year bonds, making the issue to date \$2,500,000. They are listed on the Baltimore Stock Exchange.

The Bank of Jonesboro, Ark., has increased its capital from \$50,000 to \$60,000.

The Allegany county commissioners at Cumberland, Md., will sell the proposed issue of \$150,000 county bonds at par.

The Savannah (Ga.) Volunteer Guards will issue \$90,000 worth of 6 per cent. bonds to pay off the mortgage on their armory and fund other indebtedness.

The Newport News Co. has been authorized to increase its capital stock to \$300,000.

The city of Marietta, Ga., has sold \$18,000 worth of 6 per cent. school bonds at 101½.

Interest and Dividends.

The Bank of Elberton, Ga., has declared an 8 per cent. dividend on its year's business.

The New Orleans & Carrollton Railway Co. has declared a dividend of \$1.50 per share on its stock.

The Irish-American Investment Co., of Augusta, Ga., has declared an annual dividend of 6 per cent.

The Roanoke (Va.) Building Association & Investment Co. has declared a dividend of 5 per cent.

Failures and Suspensions.

Keeling & Corbin, real-estate owners at Danville, Va., have assigned. Liabilities are estimated at \$17,000 and assets \$10,000.

O. F. Hubbard & Co., of Cambridge Md., it is reported, have made an assignment to H. D. Lecompte. Liabilities are estimated at \$8000 and assets \$2000. The firm were oyster packers.

The West-End Land Co., at Nashville Tenn., owning about 500 acres of suburban property divided into lots and valued at \$400,000, has made an assignment. Liabilities are estimated at \$150,000.

Thomas J. Talbott, tobacco manufacturer at Danville, Va., has made an assignment to W. Stegar and James P. Harrison. Assets are estimated at \$75,000 and liabilities at \$93,000.

MECHANICAL.

The McCully Rock and Ore Crusher.

The crusher represented herewith has shaft and crusher-head suspended and adjusted entirely from the top of machine, the point of least movement or gyration of the shaft, thus diminishing the supporting friction of the shaft and crusher-head to a minimum. Its shaft has upper and lower line bearings corresponding to its set angle, and as this angle is never changed, all adjusting friction due to change of the shaft angle and consequent finding or wearing of new bearings by the shaft when adjusted, and the increased consumption of power during the finding or wearing of such new bearings by the shaft, are avoided. It has a manhole or large opening in the lower casing section for access to the lower shaft-bearing and the actuating mechanism for oiling the same while the machine is in operation without danger to the attendant;

nut with the key is the adjusting nut, and the threads of the upper nut D alone support the weight of the shaft and the downward pressure incident to crushing. The other nut is a locking nut for the adjusting nut, and both are tightly screwed up so as to be rigid on the shaft to prevent all wear. The support, therefore, never wears loose. In Fig. 1 a single cap or cover, b^4 , and in Fig. 2 a double or sectional cap or cover, b^4 , are shown for obtaining access to the nuts D, D', and for supplying oil to chamber e in bore b, in which chamber is an annular outer feather-edge ring e^1 for directing away from the shaft any grit or dirt, and for graduating the supply of oil to the bearings for sleeve b^2 in bore b. A thin steel washer, c^1 , rests loosely on top of flange b^3 , and steel sleeve b^2 is on said washer; the sleeve measures from eleven to twelve inches long, and the thickness of its shell is from one and a-quarter to two and a-quarter inches; this depends on the size and weight of machines. The sleeve

gives it a rolling or traveling movement on its bearing, and also on washer c^1 on flange b^4 . By this improvement, as there is no rubbing or sliding, all unnecessary friction is avoided and very little oil is required at this point, which in this machine never heats. The shaft being cylindrical and of uniform thickness at top and bottom ends, it makes no difference as to the distance it may move up or down; the line of bearing at top and bottom never changes, and the point of fulcrum is always in the same position. Shaft C swings freely as a clock pendulum and without friction, the eccentric hub F forcing it to gyrate. The bearings here move in a bath of oil, and, having no unnecessary friction, will never heat if properly oiled. The engine power is all

head from passing down below the proper position, and also any horizontal movement, and n^2 shows the fastening keys and ring at the top of the crusher-head to prevent it rising on the shaft.

The machine is made in nine sizes, No. 1 having a capacity of from four and a-half to eight and a-half tons per hour, while No. 9 can crush from 120 to 170 tons in the same time.

Further information can be obtained from the manufacturer, R. McCully, of 1518 South Spring Garden street, Philadelphia, Pa.

Some New Forms of Roots Blowers.

The accompanying engravings are cross-sections of Roots blowers, showing two of

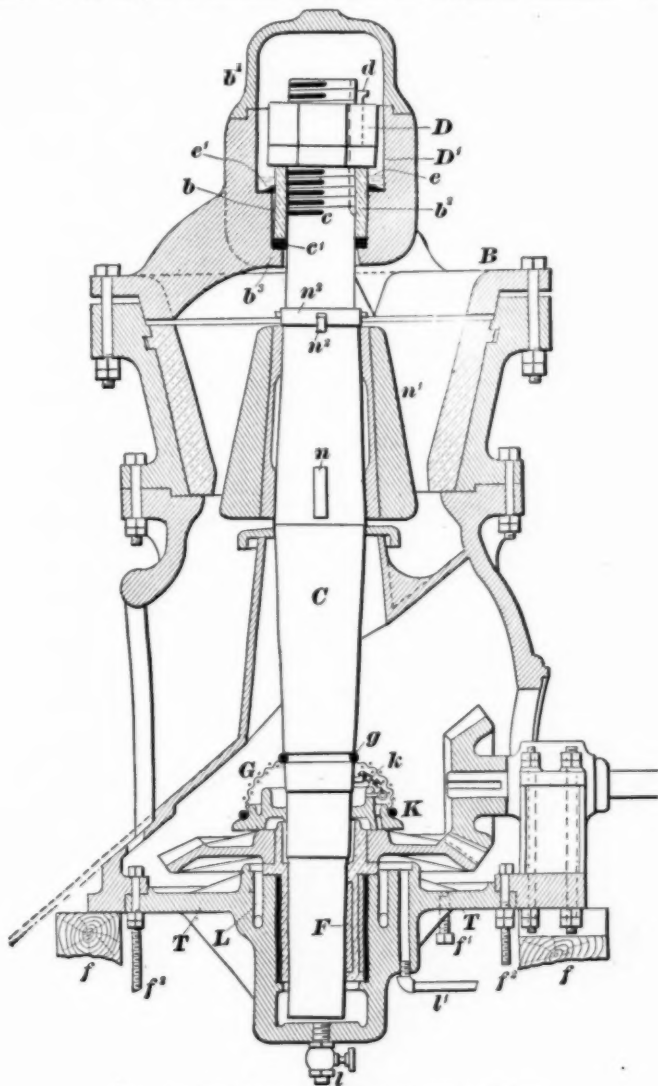


FIG. 1.—THE M'CULLY ROCK AND ORE CRUSHER.

hence there is no loss of output due to stopping the machine for oiling. It has a removable bottom supporting the lower shaft-bearing with its actuating mechanism, so that all of said parts can be easily and quickly removed from the machine for repairs or replacement and be correspondingly returned without dismantling the shaft, crusher-head or other parts of the machine.

In Figs. 1 and 2 the top-plate B has a central hub-bore (b) with bottom flange b^3 , upon which rests the sleeve b^2 . The bore b may taper outwardly, from below upwardly, corresponding to the angle or incline of the shaft C, or said bore may be cylindrical and the outside periphery of the sleeve b^2 taper from below upwardly, corresponding to the angle or incline of the shaft, as shown in Fig. 2. Two superposed steel nuts D, D' on the end of c of shaft C above sleeve b^2 support the shaft at its upper end. The upper nut D is shown provided with a key, d. In either case the

b^2 has its bearings in the hub opening b, to correspond with the incline of shaft C, and angle or incline of eccentric bearing at bottom, and the sleeve is bored to fit shaft nicely. The shaft has a screw movement in the sleeve b^2 of from six to seven inches up or down, as may be necessary to adjust for the degree of fineness required, or take up for wear of crushing faces. At same time, when it is down to the lowest point, there is then not less than from five to six inches of solid shaft without screw inside of said sleeve. This prevents the screw-threads from cutting the bearings inside the sleeve.

It will be seen that all the weight of the shaft and crusher-head, together with the downward pressure when crushing, all rest on the nut D, sleeve b^2 , washer c^1 , and is finally all supported on the annular flange b^3 at the bottom of the hub; this being the centre of movement or point of fulcrum, there is very little motion of the shaft. The sleeve b^2 gyrates with the shaft, which

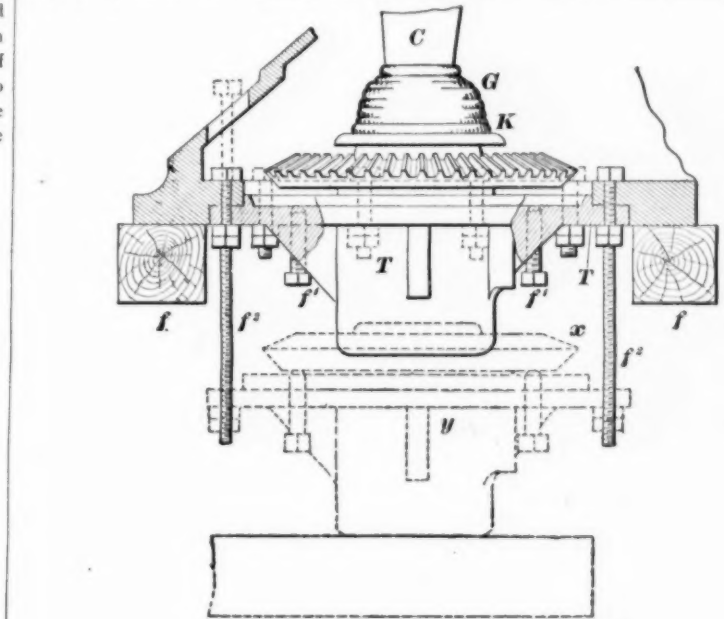


FIG. 2.—THE M'CULLY ROCK AND ORE CRUSHER.

exerted directly on the rock being crushed.

The lower section of the machine is constructed with a large opening or manhole with a close-fitting cover or door, as shown in figure, for the purpose of giving free access to the actuating gear and bottom bearings for adjusting, fitting and oiling at pleasure. The outer eccentric-bearing is oiled direct through said opening by means of a cup having a pipe connection with oiling chamber L. The collar K answers as a dust protector for the bearings. This collar does not revolve with the gear wheels, but moves with the gyration of the shaft, consequently the oil is not thrown out of the cup. It is attached to and

the latest forms of impellers adopted by the P. H. & F. M. Roots Co., of Connersville, Ind.

Fig. 1 is called the "standard" form of impeller, which is best adapted to light pressures—cupola and forge work, forced draft under boilers, exhausting dust from grinding-rooms or tumbling barrels, ventilation of buildings, glass works and for supplying air to all kinds of small furnaces.

The builders state that the contact between impellers of this form is absolutely even and uniform throughout the entire revolution, and that there is, therefore, no possible escape of air backwards, as with other forms of impellers. The shafts are

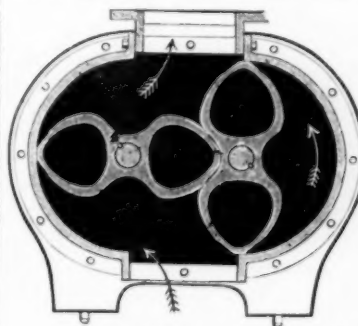


FIG. 1. NEW FORMS OF ROOTS BLOWERS.

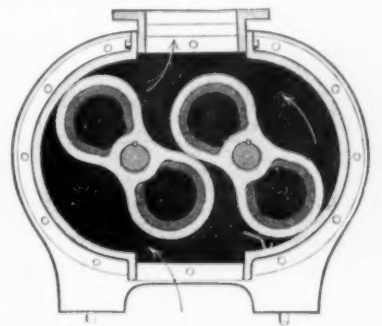


FIG. 2.

gyrates with the shaft by a hook and chain connection k, which allows the shaft to slide freely through the collar K when adjusted from the top of the machine. G represents a hood or cover of canvas or other flexible material having an annular ring fastened to the bottom of same and resting on the outside ring of collar K, and fastened rigidly to the shaft at g. The cock l, at the bottom, is for drawing off the oil if required to wash out or make changes, and l' is the overflow pipe leading to a suitable overflow receptacle outside of the machine; n represents a key set rigidly in shaft G and a corresponding key-seat in crusher-head n^1 , so that the latter will pass down said key; this prevents the crusher-

twice as heavy as those formerly used, thus insuring rigidity and smooth operation.

Fig. 2 is a new form which is called the "true circle" form of impeller. It is best adapted to heavy pressures, pneumatic tube work, etc. The builders state that they formerly made an impeller of wood similar to this, but that in constructing it of iron a new formula is used to lay off the curves of the impeller in order to accomplish certain results that could not be obtained with the old form. They state also that this blower has been thoroughly tested under pressure, and has given excellent satisfaction, working practically noiselessly. The entire surface of the impellers is finished on specially constructed machinery, thus securing uni-

form contact and reducing leakage to the minimum, and any size shaft necessary for the work to be done can be put in, and all shafts are pressed into the impellers by a hydraulic press.

A Remarkable Exhibit of Machinery.

The accompanying illustrations are well worth the study of everyone interested in the progress of American manufacturers. They give an excellent idea of what is being done by the Buckeye Iron and Brass Works at Dayton, Ohio, of which Charles E. Pease is president; Edward G. Pease, vice-president, and W. B. Anderson, secretary. The display at the Columbian Exposition as shown herewith was one of the most noticeable of all shown in the "White City."

chinery of the press was similar. The power hydraulic pumps, with their attending accumulators, were completely shown in the exhibit, and to this company belongs the credit of applying and perfecting the accumulator system to be operated by hydraulic power in oil-mill machinery. The pumps are automatically arranged, so that when the accumulator weights are suspended fully there is no expenditure of power. The high pressure is also so arranged as to take the lift from the low pressure when at the maximum, and, releasing the low pressure, the high pressure slowly works up to its maximum weight, which may be anywhere from 2000 pounds per square inch to 4500 pounds per square inch, or to any intermediate pressure, according as the accumulator is weighted.

of the largest brass manufactories in Germany.

Another special tool exhibited by this company, and one which attracted much attention from foreign mechanics, was a hexagon milling machine for squaring up and finishing the six sides of a hexagon at one operation. This is the only machine that does the work at one operation now in existence, and the only ones in use are those in the works of the company. A special medal and diploma was awarded this machine.

It also exhibited a tobacco machine of its own invention, and the manufacture of which it wholly controls. This machine is used for making the many grades of fine-cut, smoking and cigarette tobacco, and has met with such universal

was also made by the company, and was pronounced by everyone the handsomest in the building.

Furniture-Making Machinery.

Editor Manufacturers' Record:

In these days of progression manufacturers are looking very closely into their machinery departments. They find that competition is getting closer, and that they have to adopt modern methods in order to produce their wares economically. Furniture manufacturers are depending very largely now upon the woodworking machinery manufacturers. It is to them that they look for the assistance that they desire. Productions must be cheapened, and it is by and through furniture-making machinery that this can be done.

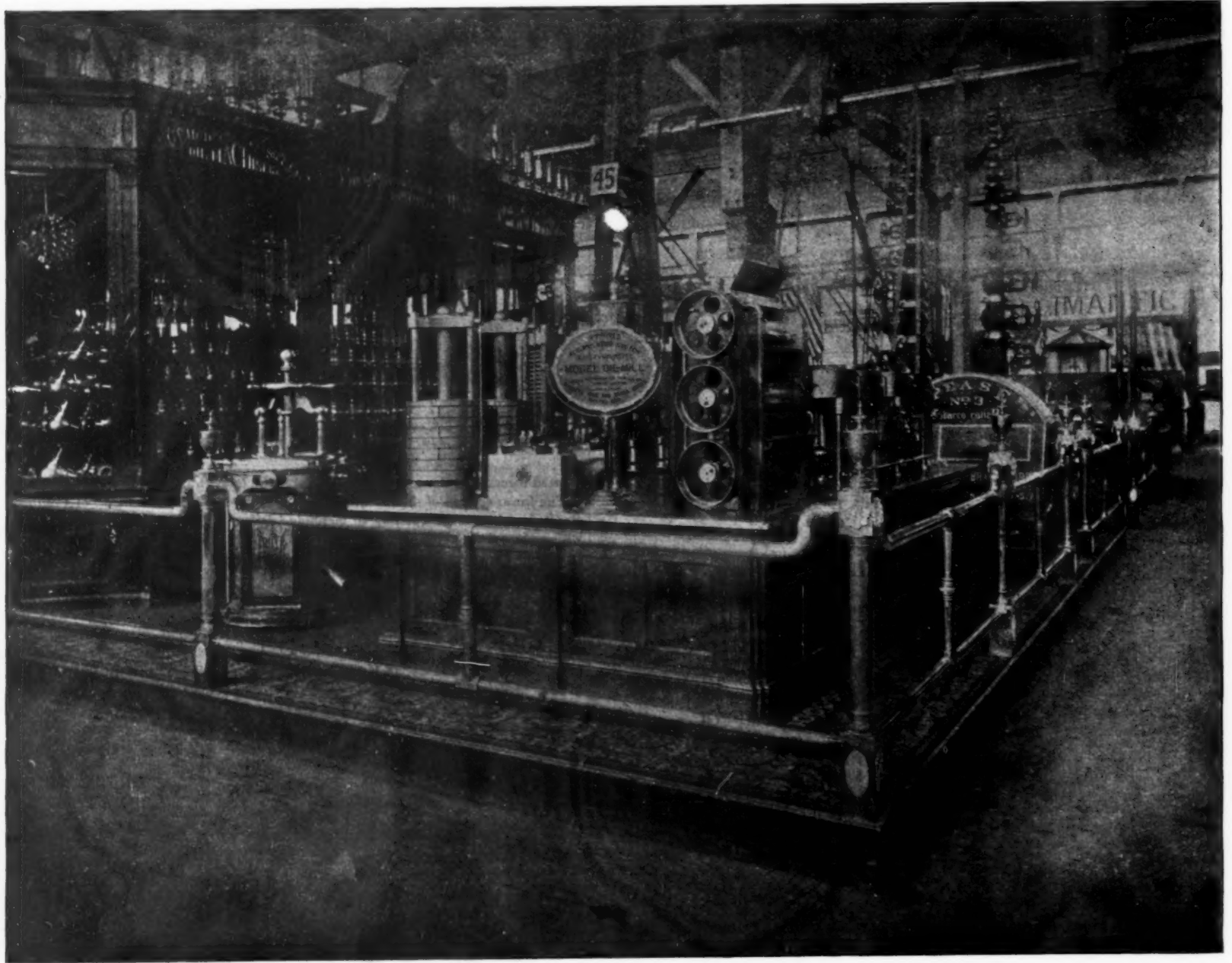


EXHIBIT OF THE BUCKEYE IRON AND BRASS WORKS AT THE WORLD'S FAIR.

The most important and attractive feature of this exhibit was a miniature oil-mill model for cottonseed or linseed complete in all minor details, built from exact drawings one-quarter of the full-size mill, and constructed with the view of operating it in the manufacture of oil from the seeds. This very elaborate model consisted of six miniature 16-box Buckeye hydraulic oil presses, one double-box hydraulic cake former, a complete set of five high-chilled crushing rolls, a complete set of four heaters or cookers, with a receiver or storage heater, all of sufficient capacity for the six presses. An additional set of three high heaters designed for linseed-oil mills was also shown, this being necessary, as the cooking process for linseed differs slightly from that required for cottonseed, and requires a different style of heater. All other ma-

This system is now successfully introduced and in operation by this company in sixteen of the largest mills in the country. The pressure, being taken from an established weight, is always uniform and regular, giving the very best results in quality of oil and uniformity of cake, and making a great saving in the cost of press cloth.

The fine quality of the machinery was well shown in the display made by this company, which was awarded a medal and special diploma for oil-mill machinery by the committee of the World's Fair awards.

The company also exhibited a full-sized hydraulic pump, capacity for a 100-ton cottonseed-oil mill; also an improved turret-head forming lathe with power feed, a very valuable tool designed for the company's own use. This tool was sold to one

favor that it has made many hundreds of them without any abatement in the trade, and they are being shipped to all parts of the world. This machine was one of the very finest finished pieces of machinery in machinery hall, and received a medal and special diploma.

Another attractive feature of the company's exhibit was that of its brass goods, iron body valves and brass castings. Its brass goods embrace everything in the line for steam engine builders, steam-heating and fire apparatus, pipe-fitters, plumbers, etc., besides all kinds of special work in this line. Buckeye iron body valves are used by all the leading engine builders throughout the country, which speaks volumes for their superiority and general excellence.

The beautiful railing around the exhibit

It has been suggested that an article be written in regard to the fitting out of a furniture factory with the latest and best approved machines. There are conditions that make a small town a favorable location for furniture manufacturing. Where a factory is located in a large city there are many expenses that are direct charges. Taxes, power, light, heat and labor are heavier in the city, and the country town or small town is preferable for many other reasons. The model furniture factory is one located not too far away from a large commercial centre, and on a good line of railroad. Making furniture by machinery does not require much skilled labor. The making up of the various parts that enter into the construction of furniture does not require much more than ordinary intelligence; in fact, the special machines do the

work, and about all the operator of the machine has to do is merely to put in the rough stock and take out the finished material. An ideal furniture factory would be one located in a small town where material can be had cheaply.

There are many places throughout the South that are adaptable for the erection of a model furniture factory. The building itself should not be more than two stories, and ought to be located near a switch for shipping facilities. The engine and boiler-house should be a separate and distinct building. The dry-kiln should also be separate. The arrangement of the machines should be so that the rough stock can be taken in at one end of the building and carried along through the different processes up to the department where the final work is done, or where occurs the assembling or bringing together of all the parts; it might be called an assembling room in a model furniture factory. The work formerly done by cabinet-workers is now done by furniture-making machines; no cabinet-makers are employed. It is

ties entering into the business. The greater the capital the more likely, with successful management, are greater results achieved, provided that the latest and best improved machines are used. Some of the woodworking machines used in furniture-making are wonderfully accurate. It has long been known that machinery duplicates each and every piece exactly. This cannot be done through hand work. These machines are fast-running, turn out their work perfectly, turn it out in the largest quantity and turn it out with the very least attention. The aesthetic element among furniture buyers claims recognition, and the call is for perfect surfaces of all kinds, so that the sandpapering machine is employed to polish the wood to an absolutely accurate and smooth surface. Then when the painter or the varnisher or the finisher takes hold and puts on the final finish there is a foundation for it, and the effects are harmonious. Hence it is that the sandpapering machine is looked upon by many as the greatest time and labor-saving machine in existence.

lathe. There are various sizes of this machine. It takes the place of hand-turning by means of a back knife. A table-leg up to six inches in diameter can be turned. The machine will turn out 500 or 600 of these table-legs a day of any kind of timber, either hard or soft. The operator merely puts in the rough stock, and the machine does the rest.

Carving machines are used very extensively and very successfully. There is a small machine used in many factories that is called a bracket carver, which is nothing more or less than a fast-running spindle with a peculiar cutter made of various shapes. The work is held up to it. Boys have become so skillful with its use that this bracket-carver machine does most beautiful work. The gluing machine also plays a prominent part in the factory equipment. A great many manufacturers use a cheap grade of lumber and veneer it. Then again, too, they use what is called built-up stock—that is, material composed of three or four thicknesses of thin stock. These thicknesses are glued by means of

ture by machinery. It is not known either, to any extent, that the very first man to use machinery in the making of furniture was a colored man of the name of Boyd. He used it very successfully, and died a rich man.

Robert Mitchell, of the Robert Mitchell Furniture Co., of Cincinnati, stated in an interview not long since that he owed his success entirely to the introduction of woodworking machinery. And there is no question but what machinery will play as important a part in the future as it has in the past. New ideas are coming out all the time, and in the months to come there will doubtless be introduced to the furniture-maker a number of interesting machines.

J. T. B.

An Improved Hollow Blast Grate.

We herewith illustrate a combination draft and blast grate bar, especially designed for the quick and perfect combustion of every sort of coal and its refuse. In Fig. 1, A represents the grate bar; C, a section of the main blast pipe, ordinarily located on the floor of the ash pit, just in advance of the bridge wall, and B, a short piece of three-inch boiler tubing fitting in



FIG. 1.

patent sockets, and forming in combination therewith an adjustable air-tight connection between the grate bar A and the main blast pipe C.

As will be seen by reference to Fig. 2, a complete grate, of whatever size, is but a reduplication of this arrangement. Thus, eight of the above grate bars placed side by side, with their accompanying sections of blast pipe and vertical connecting tubes,

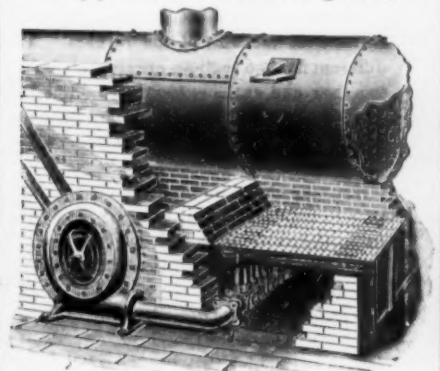


FIG. 2.

would just fill an arch four feet in width, forming a complete grate. This combination grate bar may be briefly described as consisting of a perforated top and a hollow, lozenge-shaped body, whose laterally projecting angles are provided with series of orifices below and registering with the perforations in the top of the bar. In traversing the distance between the mouth of the orifice and the perforation above, the

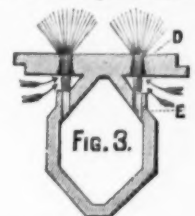


FIG. 3.

jet of compressed air is greatly augmented in volume because of the frictional resistance of the circumjacent air, which accompanies the jet through the perforation and into the furnace. This operation of the blast is indicated in the accompanying illustration (Fig. 3). It is further evident that when the blast pressure is removed the unobstructed perforation performs its usual function and the natural draft prevails. This is said to be by far the greatest im-

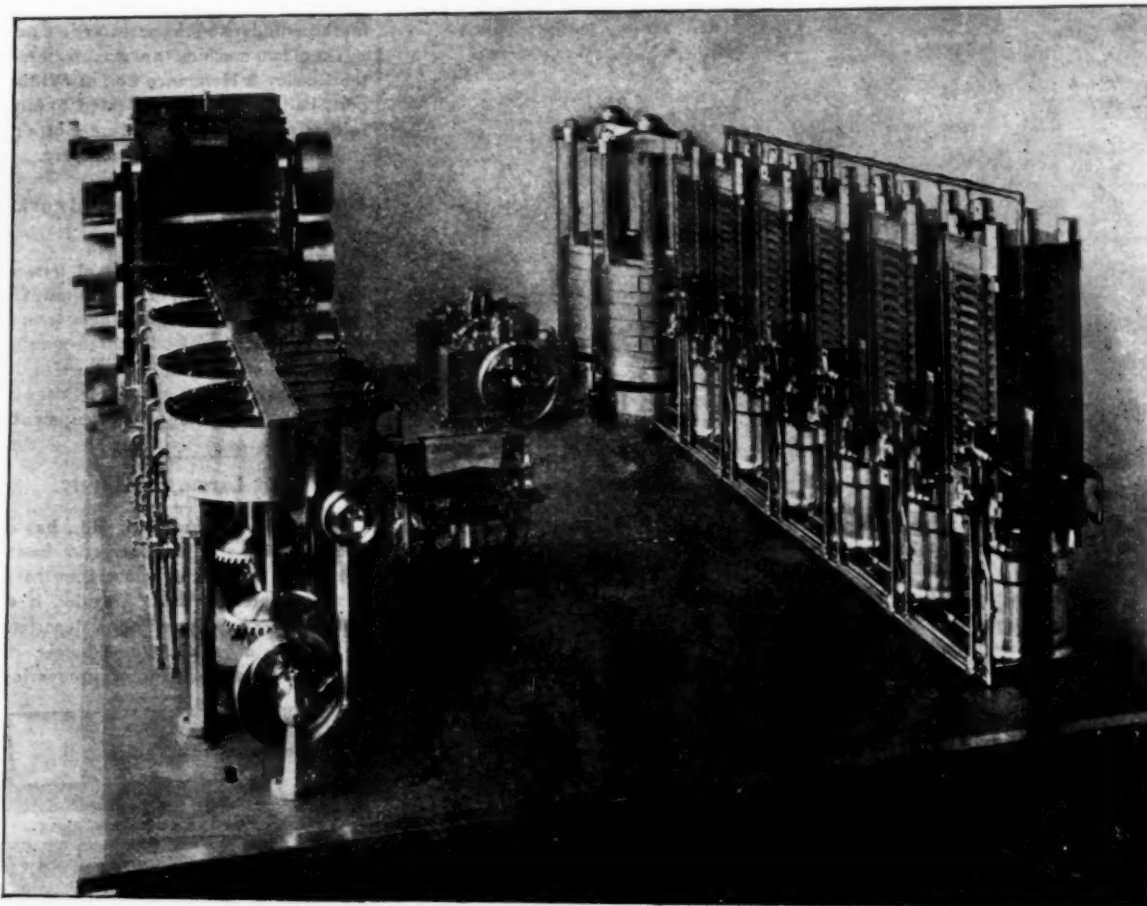


EXHIBIT OF THE BUCKEYE IRON AND BRASS WORKS AT THE WORLD'S FAIR.

merely a question of arrangement of the various machines employed. They must, of course, occupy their respective positions so that the stock can be handled from machine to machine without loss of time or without any unnecessary labor. In this connection it might be well to mention what is becoming a very important feature in furniture factories—that is, the use of factory trucks. Dimension stock is piled up on these trucks and removed rapidly to the next machine, and when the operation has been gone through with the finished stock is placed upon another truck to be carried to the next machine, and so on. It would make an article of this kind too long to mention in detail all of the machines required. There are the planers and the various saw benches, the band saw and the resaws, the boring machine, etc. The list is a long one. An equipment of say about twenty-five different machines can be had at a cost of about \$6500. This will include all of the machines, shafting, pulleys, hangers, and, in fact, everything excepting the engine and boiler outside the cost of the building. Of course, the capital to do business has to be determined by the par-

Up to within a few years this polishing was done by hand, laboriously and not very accurately, but now, with an improved sandpapering machine, such as the Fay & Co. triple-drum sander, you can get perfect service and each and every piece alike.

It is estimated that a sandpapering machine will do the work of twenty men and boys, but one can scarcely estimate the value of a machine of this character. The various processes in the making of furniture are interesting. In the using of the ordinary machines the work is carried along to where an automatic dovetailer takes it in charge for the dovetailing of bureau-drawers and work of that character. These pieces are put together and are taken to what is called a drawer-fitting machine, which is a frame composed of two large disks on which rest sandpaper of the different grades of fineness. These bureau-drawers are passed between these revolving disks, and in consequence of the passage the drawer itself is sandpapered on each side to an exact width, for the sandpapering cuts off and cuts out any inaccuracies in the construction. In table construction there is used an automatic gage

an automatic gluing machine, and the built-up stock is then taken to the press to be dried out. Machinery, of course, cheapens productions, and it is only a question of cheap labor after the machinery has been used. Then the final finish, varnish or paint, takes place. Your productions are ready for sale.

It can be safely estimated that a modern furniture factory can be fitted out with the latest and best machinery and best appliances, including engine and boiler, for about \$10,000, and according to the desires of the parties interested and the requirements of the trade. The outfit can be doubled, and, of course, the capacity increased just as much. But with \$10,000 expended in the machinery department of a furniture factory there can be produced with it annually about \$150,000 worth of furniture.

The two large woodworking machinery manufacturers, the J. A. Fay & Co., of Cincinnati, Ohio, and the Egan Co., of the same place, have fitted out many large and more small furniture factories in the South. It is not generally known that Cincinnati is the birthplace for the making of furni-

provement in grate bars ever devised. The bar just described is the product of years of observation and intelligent experiment by an expert, and is claimed to be the nearest possible approach to absolute perfection in devices of this character.

position, and is adjustable to and from the wheel for the wearing away of the wheel. The automatic cross-feed is adjustable for light or heavy cut, and is provided with a stop for regulating the cut to be taken, and when set it will stop feeding and grinding

The machine is easy to operate and keep in order, and, it is claimed, does perfect work. It is built in three sizes.

The second illustration shows the improved hand jointer or buzz planer. This machine is capable of a large variety of

justment of seven inches (shown in small view) to and from the path of the cutters, operated by hand wheels shown on the front or working side of the machine. This unusual space (fourteen inches) allows free access to the cylinder, and will be appreciated by mechanics.

An improved dovetailed incline adjustment for raising and lowering the table makes it almost impossible to get the tables out of position, and if once out can be readjusted in two minutes. This is a great improvement.

The cylinder is made of solid forged steel, small in diameter so it can be run at a high speed, which is very essential for doing smooth work on brash or cross-grained lumber. It is provided with bolts on two sides for carrying straight knives, and slotted on the other two sides for carrying rabbeting or other odd knives.

It is provided with an adjustable gage, which can be set square or at any desired bevel; also a wooden safety-guard to prevent accidents to the fingers of the operator.

Furnished with each machine is one countershaft, one set (two) straight knives for the cylinder and the necessary wrenches.

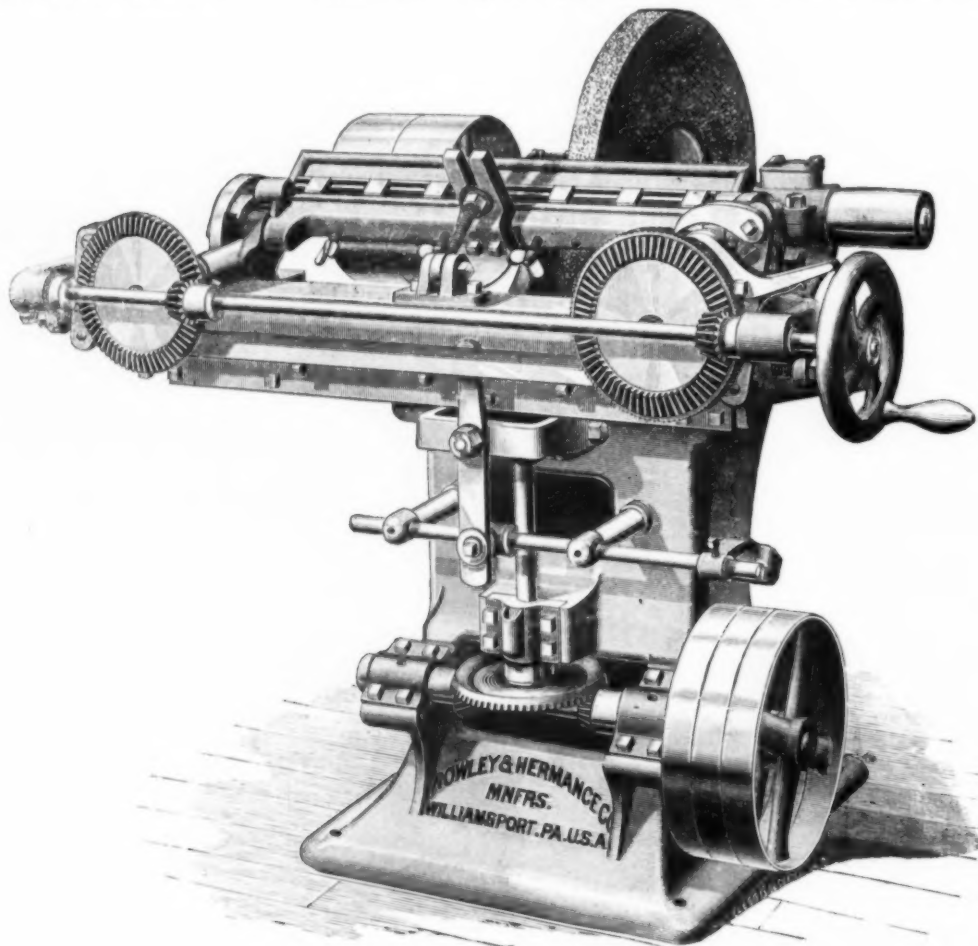
These two machines are manufactured by the Rowley & Hermance Co., of Williamsport, Pa., which will be pleased to furnish further particulars or catalogues of a general line of woodworking machinery.

Foreign Orders for Woodworking Machinery.

Foreign orders are reported as numerous by J. A. Fay & Co., of Cincinnati, Ohio. A big one has just come to them from Havana, Cuba. It will take three months to execute it, comprising as it does an outfit for furniture-making, wagon and car building, with a planing-mill equipment in addition.

Not Large, But Lively.

The town of Thurmont, Md., has only 1000 people, still its energetic business men have formed an association to promote its interests, have provided it with ample water supply and a fire department. It also has a bank and two hotels. The Business Men's Association is preparing to



NEW AUTOMATIC KNIFE GRINDER.

The capacity of the cast blast pipe C varies with the size of the furnace. The different flanged sections are securely bolted together, and at the extremity to which it is desired to attach the blower the pipe is extended through the furnace wall by the addition of further sections of unbroken exterior, the whole terminating in a sliding gate to regulate the air supply. The other extremity of the pipe is fitted with a closed section. All parts of the apparatus are machine finished.

The combination grate bars are uniform six inches in width and of any desired length. Regular lengths are forty-eight, fifty-four, sixty, sixty-six and seventy-two inches. Shorter and intermediate lengths are made to order. As the new bars fit readily into the spaces made vacant by the removal of the old, no alteration in the furnace is necessary. Other results of using this grate bar are economy, perfect control of fire, increase in steaming capacity, prevention of clinkers adhering to grate, etc.

The Gordon Hollow Blast Grate Co., of Greenville, Mich., manufactures this appliance, together with grates for wood burning. Further information, together with catalogues and other pamphlets, can be obtained on application.

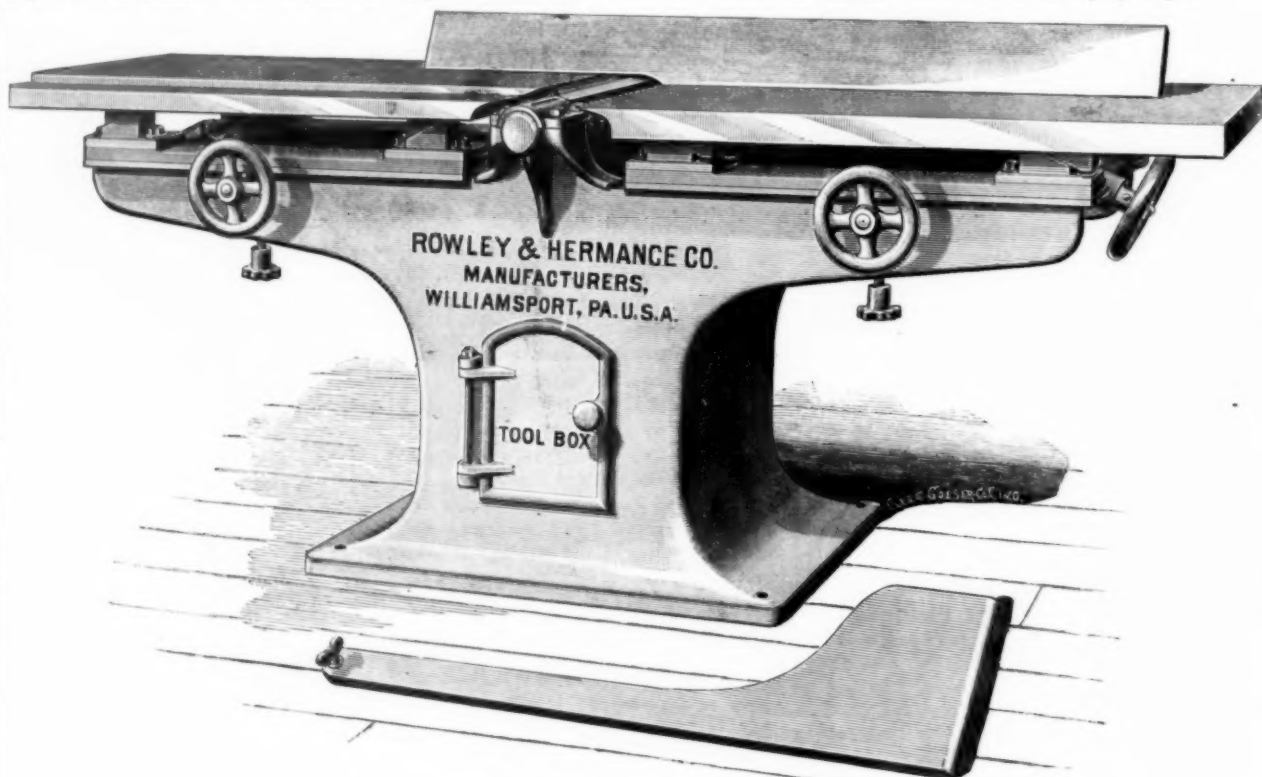
Knife Grinder and a Hand Jointer.

The illustration shows a new automatic knife grinder with power cross-feed, designed for rapid and accurate grinding of planing knives of all kinds, long or short. The base and frame are cast in one piece, making it very rigid and free from vibration while in operation. The carriage has an automatic traverse movement forward and backward across the face of the wheel, and an automatic cross-feed toward the wheel, and is provided with adjustable stops on the face of the carriage for regulating the traverse. It can be instantly stopped without stopping the wheel by simply throwing the reverse lever out of

when the cut is finished; thus the operator can attend to other work while the knife is being ground.

The knife can be set with the edge up or down, or to grind on the bottom or top of the wheel, or can be quickly set at any angle or bevel desired. The 50-inch ma-

chine has standards under each end of the bed to insure steadiness. The emery wheel is twenty-two inches diameter by one and a-half inches face, with iron centre ten inches in diameter, which greatly reduces the cost of future wheels.



IMPROVED HAND JOINTER OR BUZZ PLANER.

The frame is cast in one piece, making it strong and substantial. The tables are seven feet long. Each table has an independent vertical adjustment operated by hand wheels shown at each end of the machine, also an independent lateral ad-

conduct a party of Baltimore capitalists to the town and to show them its advantages for investment. Their expenses are to be paid going and coming. Thurmont can give many a larger place lessons in how to progress.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

✉ In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Birmingham—Rolling Mill.—The Commercial Club has a plan afoot for the organization of a co-operative company to buy and operate the Avondale Rolling Mill at Avondale, and the required amount of capital, \$25,000, will probably be secured. B. N. Rhodes, B. Steiner, R. F. Moore and others are the committee in charge.

Brewton—Lumber Mill.—The Cedar Creek Mill Co. will expend \$30,000 in improving its timber mill and converting it into a lumber plant. C. H. Snowden, manager.*

Coaling—Coal Mine.—Walter A. Smith & Co. have purchased 250 acres of coal lands near Coaling, so it is reported, and have commenced to open coal mines.

Dothen—Fertilizer Factory.—The Dothen Fertilizer Co. has been organized with a paid-in capital of \$25,000. G. H. Malone is president; J. R. G. Howell, secretary, and J. F. Dawsey, treasurer. The company will erect a plant at once and will be prepared for the coming season.

Florence—Saw Mill.—George A. Leftwich has purchased the Florence bucket factory and will convert it into a saw mill.

Huntsville—Carriage Works Enlarging.—The Skinner Carriage Works are being enlarged.

Mobile—Grain Elevator.—In the matter of the proposed grain elevator a committee has been appointed to solicit subscriptions. John E. Michael, Lyman C. Dorgan, Henry Fonde and others compose the committee.

Opelika—Oil Mill.—The erection of a cottonseed-oil mill is contemplated by H. B. J. Montgomery.

ARKANSAS.

Bodcaw—Lumber Mill.—A rumor says that William Buchanan has placed an order for a \$50,000 lumber mill.

Helena—Electric Plant.—The Helena Gas Co. has amended its charter, obtaining privilege to erect an electric plant.

Little Rock—Woodenware Factory.—The Midland Woodenware Co., of Midland, Mich., has made the Board of Trade a proposition to remove its factory to Little Rock. A \$75,000 plant is proposed, to employ 125 men.

Russellville—Drugs.—The Weimar Drug Co. has been organized with a capital stock of \$15,000, all of which has been subscribed. W. G. Weimar is president, and W. E. Pruitt, secretary-treasurer.

Weston Siding (P. O. Humphrey)—Lumber Plant.—The Arkansas County Lumber & Stave Co. has been incorporated with a capital stock of \$50,000, of which \$32,000 has been subscribed. Luther White is president; F. O. Bass, vice president, and D. D. Cole, secretary-treasurer.

FLORIDA.

Alachua County—Phosphate Mines, etc.—James Chambers, of Ocala, will, it is reported, erect plant and open mines in Alachua county.

Fulton—Canning Factory.—T. Hole has started a new fish cannery.

Inverness—Phosphate Mines.—Biggs & Co. have leased part of their lands to parties who will at once develop phosphate mines.

Inverness—Phosphate Mines.—The New York Hard Rock Phosphate Co. will open new mines on the Purnell tract near Inverness.

Key West—Water Works.—The city will soon let contract for the construction of its proposed water

works. Address the board of city commissioners.*

Inverness—Lumber Mills.—The C. T. Sowden Manufacturing Co. is to erect a large lumber plant in Citrus county, on the Withlacoochee river, and five carloads of machinery have already arrived, with seven more on the way. A large tract of cypress timber is the land to be developed.

Jacksonville—Tannery.—C. H. Smith is interested in the tanning of leather with tannic acid from the palmetto, and he will endeavor to have a plant established in Jacksonville.

Jacksonville—Lumber Mill.—The Wilson Cypress Co., of Palatka, will probably erect a lumber mill at Jacksonville.

Jacksonville—Lumber Mill.—Cummer & Co., of Norfolk, will, it is claimed, erect a lumber mill at Jacksonville; probably premature.

Jacksonville—Refrigerator, etc.—The Anheuser-Busch Brewing Association, of St. Louis, Mo., will erect large refrigerator and brewery depot at Jacksonville. Plans are being prepared.

Jacksonville—Wharf.—F. F. L'Engle has let contract to G. F. Broughton for the erection of a large wharf.

Leesburg—Canning Factory.—A Mr. Snyder, of Canada, proposes to erect a canning factory at East Leesburg.

Leroy—Phosphate Mine.—The York Phosphate Co. is opening a mine.

Phoenix—Phosphate Mines.—Swan & Williams, of Fernandina, are opening the phosphate mines noted last week in connection with Nixon Bros.*

Phoenix—Phosphate Mine.—Nixon Bros. are opening up a phosphate mine near Phoenix.

Rockledge—Canal.—The Rockledge Beach Canal Co. has been organized with A. S. Lee, president; Edward L. Magruder, treasurer, and C. A. Chatfield, of New Haven, Conn., secretary. The company's capital stock is \$20,000, and its purpose is to construct a canal between the Indian and Banana rivers, in Brevard county.

St. Augustine—Sewerage.—A committee has been appointed to secure plans and estimates of the city's proposed sewerage system. Address the mayor.

Stokes's Ferry (not a postoffice)—Lumber Plant.—M. A. Shaw, of Philadelphia, and associates are reported as making preparations for the erection of a \$50,000 lumber plant on the Withlacoochee river, near Stokes's Ferry.

White City, Brevard County (P. O. Ankona)—Real Estate, etc.—The Florida Cosmopolitan Immigration Co. has been organized with a capital stock of \$250,000 in deal real estate, promote immigration, etc. Emanuel Jose is president; Louis Pio, secretary, and Peter G. Myer, treasurer. William Huber, general agent, Jacksonville, can be addressed.

Windsor—Saw Mill.—Adler & Griffin will rebuild their burned saw mill.*

Ybor City—New Machinery.—The Ybor City Novelty Works has added new machinery.

Ybor City—Ice Plant, etc.—The Ybor City Ice Co. is reported as having plans prepared for a new ice plant and cold-storage house.

GEORGIA.

Americus—Cigar Factory.—The La Cubano Cigar Co., of Thomasville, contemplates establishing a large branch factory in Americus. Thirty-five thousand dollars is proposed to be invested and 100 hands employed.

Atlanta—Mercantile.—F. J. Stilson, W. R. Collins and E. B. Stilson have incorporated the Stilson & Collins Jewelry Co. to deal in jewelry. The capital stock is \$25,000.

Atlanta—Ammonia Works.—At the meeting of the Southern Ice Exchange last week the advisability of erecting ammonia works was discussed. Sol Benjamin, of Atlanta, is chairman of the committee appointed to investigate the matter.*

Augusta—Car Works, etc.—Efforts are being made to secure the establishment of a powder and cartridge factory and car works. The latter plant, if it should be started, would employ 500 men. For information address secretary of Young Men's Business League.

Columbus—Gun Works.—It has not yet been definitely determined that the gun works noted last week will be located in Columbus, but negotiations for machinery are now pending, so we are informed by C. J. Swift. For further information address the Ostrander Repeating Double Barrel Gun Co., 216 Bush street, San Francisco, Cal.

Columbus—Oil Mill.—J. P. Kyle contemplates erecting a cottonseed-oil mill on his farm near Columbus.

Cordele—Foundry and Machine Shops, etc.—The Cordele Machine Shops, Foundry and Planing Mill, burned on the 11th inst., will probably be rebuilt at once. The loss was over \$25,000. R.

C. Harris and R. G. Tomlin, proprietors. Mr. Harris writes us that the firm anticipates rebuilding the machine shop, but not the planing mill. The new main building will be 40x120 feet.*

Cuthbert—Electric-light and Water Works.—The city council will order an election for May 18th to decide as to the proposed erection of electric-light plant and construction of water works. Address the mayor.

Fort Gaines—Oil Mill.—The Farmers & Merchants' Oil & Guano Co. has not yet definitely decided to rebuild its burned cottonseed-oil mill, but will do so if satisfactory arrangements can be made.

Macon—Clothing Factory.—The bureau of information is in correspondence with a party in reference to the location of a plant for manufacturing jeans, duck and denim clothing. The factory, if located, will employ 140 hands, with a weekly pay-roll of \$1400.

Newton—Artesian Well.—Endeavors are being made to have an artesian well bored. C. E. Norris can be addressed.

Savannah—Railroad Shops.—The Florida Central & Peninsular Railway Co. will erect new buildings for repair shops.

Savannah—Electric Plant.—The Brush Electric Light & Power Co. intends to erect a new plant, and a suitable site has been secured. About \$50,000 will be expended on new building, new boilers and other improvements.

Tallapoosa—Hosiery Mill Enlarging.—R. C. Rightmire will shortly increase the output of his hosiery mill and add new machinery.

Tallapoosa.—The Highland Colony of Fruit Growers has been incorporated with a capital stock of \$15,000 by R. E. Pineo, W. W. Summerlin, J. H. Whitaker and L. D. Phillips. Their purpose is to cultivate fruit, etc.

Tallapoosa.—R. E. Pineo, W. W. Summerlin, J. H. Whitaker and L. D. Phillips have incorporated the Southland Colony of Fruit Growers to cultivate fruit, etc. The capital stock is \$12,000.

Thomson—Corn Mill.—Granade & Shields will rebuild at once their burned corn mill.*

KENTUCKY.

Covington—Electric Consolidation.—The consolidation of the Covington Electric Light Co., the Citizens' Electric Light Co., of Dayton, and the Suburban Illuminating, Heating & Power Co., of Newport, has been consummated under the title of the Suburban Electric Co., with a capital stock of \$250,000. J. E. Lowes, of Dayton, Ohio, is president; J. R. Coppin, of Covington, vice-president; and H. M. Healy, of Newport, secretary-treasurer. It is understood that the several plants will be improved.

Deanfield (Etnaville P. O.)—Coal-mining, etc.—Three hundred and sixty acres of land at Deanfield have been leased and 300 acres more will be secured by a company which intends to institute at once active developments in coal mining. Wilbur F. Browder, of Russellville, Ky.; D. W. Sanders, of Louisville; Thos. S. Pettit and Geo. C. Roberts, of Owensboro, Ky., and M. S. Thompson, of Cadiz, are interested. Brick and tile works may also be established.

Earlington—Coal Mines.—D. A. Morton and J. T. Alexander have purchased the Hecla coal mines at assignee's sale for \$25,000, and will continue their operation.

Elizabethtown—Water Works.—An engineer's report has been made in a survey for the city's proposed water works. The estimates place the cost at about \$23,000, and include four miles of pipe and a 180,000-gallon tank. Address the mayor.

Lancaster—Water Works, Lighting Plant and Ice Factory.—A franchise has been granted to the Lancaster Ice, Light & Water Co. to construct water works and lighting plant. An ice plant will also be erected.

Lancaster—Planing Mill.—H. T. Noel will build a planing mill.

Louisville—Shoe Factory.—The Auer Shoe Manufacturing Co. has purchased the old Cimiotti shoe factory and thoroughly overhauled and prepared it for operation.

Louisville—Bakery.—The United States Baking Co. has secured permit to erect a \$30,000 factory.

Louisville—Steel Works.—It is stated that a new steel company will be organized to utilize the old buildings of the Kelly Axe Manufacturing Co.

Middlesborough—Coal Mines.—It is reported that J. H. Bartlett, of Middlesborough, is organizing a company for the purpose of purchasing the entire interests of the coal operators in the Mingo district, and consolidating the mines under one management. English capitalists will, it is said, furnish the capital.

Paris—New Electric Machinery.—The Paris Electric Light Co. is adding considerable new machinery to its plant, including a 150 horse-power en-

gine, 150 horse-power boiler, a 50-lamp arc dynamo, a 2700 lamp incandescent dynamo, etc.

Shelbyville—Electric-light and Water Works.—The stockholders of the Shelbyville Water & Electric Light Co. have held a meeting and organized with Louis Channing as president and H. P. Poynter, secretary-treasurer. The capital stock has been placed at \$40,000, and steps will at once be taken to contract for a water-works plant.

LOUISIANA.

Baton Rouge—Sewerage System.—The Waring system of sewerage will be constructed for the State penitentiary at a cost of \$6325.

Glencoe—Sugar Refinery.—Bodenheimer & Bros. will erect a sugar refinery on the Crawford plantation.

Lake Charles—Road Improvements.—The police jury will expend about \$20,000 on road improvements during the year.

Lakeland—Oil Mill.—The Lakeland Oil Mill Co. may soon reorganize and rebuild its burned plant.

New Iberia—Planing Mill.—E. A. Pharr will add a planing mill to his plant.

New Orleans—Tinware Works.—The secretary of the Young Men's Business League is in correspondence with a St. Louis (Mo.) company relative to the concern removing its plant to New Orleans.

MARYLAND.

Annapolis—Water Company.—J. I. Yellott, Wm. A. Hanway and G. H. Rice propose to organize the Lawson Water Co.

Baltimore—Steel Bridge.—The city council has adopted an appropriation of \$27,000 to erect a new steel bridge over Gwynn's falls. Address the mayor.

Baltimore—Canning Factory.—The Spanish Main Coconut Co., incorporated during the week, has commenced operations on Bowly's wharf, where forty persons are employed in preparing ground coconut. Machinery with a weekly capacity of 75,000 pounds has been installed.

Baltimore—Novelty Works.—Jno. E. Norwood, Jno. M. Porter, Wm. S. Taylor, Jr., William C. Stewart and Walter F. Leland have incorporated the Norwood Manufacturing Co. for the purpose of manufacturing novelties. The capital stock is \$50,000.

Baltimore—Fertilizer Factory.—John Q. McAfee, Michael T. Dorsey, Wm. J. McGraw, Jno. S. Dorsey and Chas. H. Miller have incorporated the McAfee Raw Bone Phosphate Co. for the purpose of manufacturing fertilizers. The capital stock is \$20,000.

Baltimore—Machine Works.—Frank G. Hoopes, James E. Tyler, Augustus DeK. Sappington, Albert M. Revers and Ocho L. Parker have incorporated the Cooperage & Machine Co. to manufacture machines for barrel making. The capital stock is \$10,000.

Baltimore—Water Works.—The Ruxton Water Works Co., chartered by the last legislature, has filed its charter at Towson.

Baltimore—Ice Rink.—The Arctic Skating Co., recently noted, will probably select a site on North avenue for its proposed artificial ice lake. A building 60x250 feet is to be erected, and work on it will commence shortly. O. Hammond, Jr., 921 South Wolfe street, can be addressed.

Baltimore—New Machinery.—The shops at St. Mary's Industrial School, on Wilkens avenue, are to be renovated, and considerable new hosiery and knitting machinery, boiler, etc., will be put in.

Baltimore—Tinware Works.—Matthai, Ingram & Co. will erect a four-story warehouse enlargement to their tinware works.

Cumberland—Telephone System.—The Citizens' Telephone Co. has been organized with a capital stock of \$40,000, and a system of telephones will be constructed at once. L. D. Rohrer is president; E. H. Welsh, treasurer, and Jno. T. Edwards, secretary.

Cumberland—Incubating Plant.—Johnson & Lee will erect an extensive chicken incubator plant.

Hagerstown—Publishing.—J. Clarence Lane, of Hagerstown; Wm. H. Shepherd, of Cumberland; G. G. Williams, of Philadelphia, Pa.; S. W. Goodwin, of Waterville, N. Y.; Philip W. Avirett, of Cumberland, and several others have formed a syndicate to purchase and continue the publication of the Hagerstown News. Address Mr. Avirett, at Cumberland.

Ladlesburgh—Canning Factory.—Koons & Birely will establish a canning factory.*

Lonaconing—Brewery.—Conrad Hohing proposes to refit his brewery and resume business.

Lonaconing—Woodworking Plant.—A. Eichhorn will put in machinery for the manufacture of caskets, coffins and furniture.

Morrison's Station (P. O. Barton)—Planing Mill.—

The Piedmont Lumber Co., William Gill, proprietor, is adding a planing mill to its plant.

Thurmont (P. O. and former name Mechanics-town)—Iron Works.—The American Signal Co., said to be composed chiefly of Baltimoreans, has secured a factory building and will manufacture an electric railway-crossing signal. A cupola furnace will shortly be added to the plant.

Trappe—Electric-light Plant.—It is stated that an electric-light plant will be established.

Washington, D. C.—Electric Plant.—J. Vernon Campbell and Joseph P. Smith, of Baltimore, and Eugene W. Tucker, of Wisconsin, are preparing to organize an electric company in Washington.

Washington, D. C.—Pumping Station.—Bids have been opened and will shortly be awarded for pumping engines of 5,000,000 gallons daily capacity, to be located at the U street station a Fort Reno, Tennallytown.

Washington, D. C.—Flour Mills, etc.—The Washington Flour & Feed Co. has been chartered to manufacture flour and deal in grain with a capital stock of \$100,000. Reuben F. Baker, of 406 Pennsylvania avenue, is president; Albert Ordway, of 702 Seventh street N. W., vice-president, and James B. Adams, of 1028 Sixteenth street N. W., secretary-treasurer.

Washington, D. C.—Mercantile.—The M. Metzger Co. has been granted a charter to transact a grocery and commission business. W. K. Norris is president, and Isaac N. Hall, secretary-treasurer; capital stock placed at \$10,000.

MISSISSIPPI.

Enterprise—Turpentine Still.—M. E. Deas has put in a still and commenced the manufacture of turpentine.

Meridian—Sewers.—Proposals for constructing the city's seventeen miles of vitrified pipe sewers, etc., will be opened on May 1; I. A. Mooser, city clerk, and M. M. Brandon, city engineer.

Meridian—Pottery.—The Meridian Pottery Manufacturing Co. will at once rebuild its burned plant. Main building will be of brick, 60x90 feet, two stories, and a 40x80-foot wing. Most of the machinery injured in the fire can be overhauled and put in use again.

Natchez—Canning Factory.—The establishment of a canning factory is proposed. The secretary of Cotton and Merchants' Exchange can probably give information.

Rosedale—Saw Mill.—Joseph H. Abels intends to erect a saw mill of 15,000 feet daily capacity.*

MISSOURI.

Kansas City.—George B. Bellows, E. C. Reynolds and F. M. Hayward have incorporated the Monadnock Investment Co. with a capital of \$5000.

Kansas City—Machine Shops.—The Howell & Chase Machine Co. has been organized with a capital of \$3000.

Kansas City—Grain Elevator.—Hayward & Co. will probably rebuild their grain elevator before the new wheat crop is ready for market.

Kansas City—Land, etc.—A charter has been granted to the Mexican Colonization & Land Co. with a capital of \$2000.

Poplar Bluff—Saw Mill.—Mast, Kalback & Spangler will doubtless at once rebuild their burned saw mill located near Poplar Bluff.

Sedalia—Ice Plant, etc.—The Sedalia Ice Manufacturing Co. will put in more boiler capacity, apparatus for cooling water and power for same.

St. Louis.—Anthony B. Silverstein, George J. Markert and Vincent Boisaubin have incorporated the Great Western H. & H. Co. with a capital stock of \$10,000.

St. Louis—Construction Company.—James Macklin, E. L. Delzell and M. Alexander have incorporated the Portland Granitoid & Construction Co. with a capital stock of \$6000.

St. Louis—Lumber.—Alex. M. Beckers, Churchill G. Brooks and Charles L. Beckers have incorporated the A. M. Beckers Lumber Co. with a capital stock of \$40,000.

St. Louis—Realty.—John, Patrick J., Patrick M. and Ellen Staed have incorporated the Staed Realty Co. with a capital stock of \$60,000.

St. Louis—Publishing.—L. G. Kramer, P. M. Hanson, M. Greenwood and others have incorporated the International Publishing Co. with a capital stock of \$25,000.

St. Louis—Realty, etc.—Thomas and Mary Quinn, Thomas and Anna Maloney have incorporated the Toms Realty & Building Co. with a capital stock of \$25,000.

St. Louis—Shoes.—Samuel A. Blasland, Robert W. Parsons, W. H. Jordan, James R. Mitchell and W. J. Hatfield have incorporated the Blasland-Parsons Jordan Shoe Co. with a capital stock of \$116,000.

NORTH CAROLINA.

Burlington—Cotton Mill Enlarging.—The Aurora Cotton Mill is reported as to double its plant; 468 spindles and 220 looms are now in operation.

Charlotte—Trouser Factory.—The Charlotte Trouser Co. will increase its working force by fifty hands.

Charlotte—Weaving Mill.—The Crowley Manufacturing Co. will build an addition to its weaving mill and put in from eighty to 100 new looms.

Concord—Cotton Mill.—The G. W. Patterson Manufacturing Co. has been organized to establish a cotton mill. The subscribed capital stock is \$25,000, with privilege of increasing to \$100,000; W. R. Kindly, president, and G. W. Patterson, secretary and treasurer. Charter has been applied for and granted with Mr. Kindly, Mr. Patterson, E. D. Lentz, J. F. Goodson, C. F. Ritchie and others as the incorporators.*

Ellerbe Springs—Copper and Gold Deposits.—Gold, copper and possibly silver deposits have been found on Jas. H. Forben's property; he may develop or sell.

Greenville—Electric-light Plant.—The erection of an electric-light plant is contemplated.

High Point—Furniture Factory.—It is understood that the Home Furniture Co. will at once rebuild its burned factory.

Raleigh—Car Works.—The Chamber of Commerce is in correspondence with Townsend & Brown, of Newcastle, Pa., who, it is reported, contemplate establishing car works in the South.

Raleigh—Cotton Mill Enlarging.—It is reported that the Raleigh Yarn Mills will put in new spindles.

Statesville—New Machinery.—The Iredell Tobacco Co. is adding machinery to its factory.

Statesville—New Machinery.—The Key Tobacco Manufacturing Co. has lately put new machinery in its factory.

Valdese—Hosiery Mill.—John Meier, lately superintendent of the Oates Hosiery Mill in Charlotte, will establish a similar plant in Valdese. Building has been secured and machinery ordered.

Vandemere—Alcohol Works.—The manufacture of alcohol is contemplated, and Geo. A. Leinan can be addressed for information.*

Winston—Tobacco Factory.—Samuel Blackburn has leased building and will at once start tobacco factory.

Winston—Tin-tag Works.—The Lanier Printing Co. has prepared its plant for manufacturing plain tin-tags for the tobacco trade. Next fall a two-story addition 20x25 feet will be built and four stamping machines, steel and iron-cutting saw, electric motor, etc., will be put in.*

SOUTH CAROLINA.

Blacksburg—Fertilizer Factory.—The Blacksburg Phosphate & Guano Co., which obtained charter in January, is now said to be arranging for the early erection of a factory. T. B. Gautier, D. C. Ebaugh and John F. Jones are among the incorporators. Charleston parties will, it is said, furnish the capital. John F. Jones, of Blacksburg, can give particulars.

Columbia—Electric-light Plant.—It is said that the new city council favors the erection of an electric-light plant by the city, and that it will agitate the matter. Address the mayor.

Edgefield—Electric-light Plant.—R. L. Fox writes us that the contemplated electric-light plant has been abandoned for the present.

Newry—Cotton Mill.—The Courtenay Manufacturing Co., now building a cotton mill, has given notice of the increase of its capital stock from \$150,000 to \$200,000.

TENNESSEE.

Blue Spring Station—Lead and Zinc Mines.—Lead and zinc deposits have been discovered on land near Blue Springs owned by Hardwick Bros., of Cleveland, Tenn., and J. L. Caldwell, of Chattanooga. The property will be developed by the Hardwick Zinc & Lead Co., now being organized.

Chattanooga—Tobacco Works.—The Moross-Goad Tobacco Co. has secured larger quarters for its works, and will move into same at once.

Chattanooga—Factory Enlarging.—The curtain-pole factory located in East Chattanooga will be enlarged. H. L. Judd, of New Jersey, controls the plant.

Chattanooga—Stove Works.—The Southern Queen Manufacturing Co.'s proposed enlargement of its plant will consist of a new building 30x160 feet and some new machinery. Twenty additional hands will be employed.*

Greenville—Medicine Factory.—H. E. Brown has purchased for \$57,000 the buildings and land now occupied by the Brown Manufacturing Co.

Jackson—Skewer Factory.—The Messrs. Johnson, of Indiana, contemplate erecting a skewer factory at Jackson to occupy six acres of land and employ 100 hands. Address care of the Board of Trade at Jackson.

Jackson—Increasing Capacity.—The Jackson Cider and Vinegar Works has increased its working force and capacity.

Knoxville—Stove Works.—Fair, Day & Deklyne have started stove works, and are now turning out eight stoves daily. Capacity will be increased soon.

McMinnville—Stone Works.—M. H. Fitts will probably organize a company to establish works for quarrying and finishing lithographic stone.

Nashville—Sewers.—The city has awarded con-

tracts aggregating \$30,711 for the construction of brick sewers. J. A. Jowett, city engineer.

Nashville—Lumber Manufacturing.—C. S. Rose, W. A. Cool, George D. Higley, C. F. Caldwell and L. E. Gates have recorded charter for the Tennessee Lumber Manufacturing Co.

TEXAS.

Austin—Printing Works, etc.—The Cottrells Protective and Detective Association of America has filed its charter, its purpose being to conduct a printing and publishing business, etc. J. W. Cottrell, W. H. Van Riper, Jas. E. Bouldin, Ed. H. Taylor and others are the incorporators; capital stock \$100,000.

Austin—Manufacturing.—Joseph B. Winn, Chas. B. Winn and W. L. Graham have incorporated the Franklin Manufacturing Co. with a capital stock of \$50,000.

Corsicana—Grain Bins.—The Texas Mill & Elevator Co. will erect grain bins of 50,000 bushels capacity, and contract has been let.

Dallas—Machine Works.—C. W. Parker, Paul Furst and W. K. Parker have incorporated the Texas Implement & Machine Co. with a capital stock of \$50,000.

Dallas—Cistern Works.—A. Eidelbach, of Flatonia, contemplates erecting in Dallas works for the manufacture of cisterns.

Eagle Pass—Water Supply.—The Texas-Mexican Electric Light Co. has amended its charter, obtaining privilege to supply water.

Fort Worth—Oil Mill.—The erection of a cotton-seed-oil mill is proposed. E. Van Winkle, of Atlanta, Ga., can probably give information.

Fort Worth.—A charter has been granted to H. C. Howel & Co. with a capital stock of \$30,000, the incorporators being H. C. Howel, A. W. Walton and John W. Wray.

Galveston—Cotton Compress, etc.—Contract has been closed between the Galveston Wharf Co. and W. L. Moody, of Galveston, for the construction and operation of a cotton compress and cotton yards by the latter upon ten acres of the wharf company's water front. Contract for the construction of the compress has been awarded to Will W. Bierce & Bro., of Montgomery, Ala., and \$200,000 will be expended on the plant.

Honey Grove—Ice Plant.—E. F. Wortham, W. E. Melton and A. D. Paston have leased the Honey Grove Ice Co.'s plant.

Mathis—Irrigation Plant.—Miller & Hill's large irrigation plant has been completed and is now in operation.

Milford—Water Supply.—W. F. Weekly, J. R. Morrel and W. T. M. Dickson have incorporated the Milford Artesian Well Co. for the purpose of supplying water; capital stock placed at \$5000.

Mt. Pleasant—Machine Shops.—The St. Louis & Southwestern Railway Co. will erect new repair shops.

Sabine Pass—Lumber Plant.—A large lumber plant will probably be established in the near future.

Tyler—Box Factory.—T. J. Shamburger has started the manufacture of fruit boxes.

Waco—Compress and Gin.—S. I. Munger, of Dallas, is arranging with the Bessonet Compress Co. for the erection of a new cotton compress and gin in Waco.

Wharton—Water Supply.—Charles Underhill is erecting a 20,000-gallon tank for water supply.

VIRGINIA.

Alexandria—Water-power Development, etc.—The Alexandria County Water, Light & Power Co., lately incorporated, has stock books now open for subscriptions. Its purpose is to utilize the Great Falls, Fairfax county, Va., for power and supply water and light for public and private use. For further particulars address care R. H. Phillips, 1422 New York avenue, Washington, D. C.

Buchanan—Canning Factory.—Thos. A. Linkenhoker, John Ageon and James Ageon, forming the West Buchanan Canning Co., will soon start up their factory. All necessary machinery has been purchased.

Chase City—Shoe Factory.—R. H. Lanyon, lately of Crewe, has removed his shoe factory to Chase City, and his machinery is turning out 100 pairs of shoes daily.

City Point—Brick Works and Quarry.—The Virginia Brick & Stone Co., of Richmond, is reported as to establish brick works and open quarry on land near City Point which it has just purchased.

Clifton Forge—Steam Laundry.—R. L. Thomas has purchased complete outfit for a steam laundry at a cost of \$3000, and will operate as the Troy Steam Laundry.

Crimora Station—Flour Mill.—J. Lee Koiner will rebuild his burned flour mill at once. Contract for building has already been let, but not for machinery. A 100-barrel equipment will be installed.

Gate City—Marble Works.—A Pennsylvania party is reported as probably to establish a marble plant near Gate City, where extensive marble deposits are found. J. K. Taggart, of Big Stone Gap, can probably give information.

Graham—Tannery.—Pennsylvania capitalists pro-

pose erecting a steam tannery, and the Graham Land & Improvement Co. has donated site.

Lynchburg—Pipe Works.—The Glamorgan Co.'s burned pipe works were valued at about \$165,000, and a large number of hands were employed. Work of rebuilding on an enlarged scale will be commenced in a few days.

New Alexandria—Brick Plant.—L. W. Spear, of Washington, D. C., is arranging with associates for the erection of a plant at New Alexandria for the manufacture of a patent brick or stone facing. Erection of buildings will commence in a few weeks, and from twenty-five to fifty hands will be employed.

Newport News—Capital Increase.—The Newport News Co. (office, Richmond, Va.) has amended its charter, increasing maximum capital stock to \$300,000.

Norfolk—Water Supply.—The city will contract with the Ray Artesian Well Co. for a daily supply of 5,000,000 gallons of water at a cost of \$65,000.

Petersburg—Tobacco Factory.—Bland Bros. & Wright will probably rebuild their tobacco factory, destroyed by explosion last week.

Port Conway—Canning Factory.—The Port Conway Canning Co. is erecting the canning factory noted several days ago.

Portsmouth—Lumber Mills.—The Portsmouth Lumber Manufacturing Co. will repair its mills, recently damaged by fire. All the machinery needed has been purchased.

Portsmouth—Ice and Packing Plant.—C. R. Robertson & Co. have lately completed an ice factory and cold-storage plant, together with facilities for killing and packing meats.

Pulaski—Foundry.—The new foundry being built by the Dora Furnace Co. is nearly completion and will soon be in operation.

Richmond—Viaduct.—The Virginia Electric & Railway Co. has petitioned the city council for permission to construct a viaduct on Broad or Marshall streets.

Richmond—Sewer.—A sewer will probably be built on Cary street at a cost of \$13,000. Address the city engineer.

Roanoke—Tobacco Factory.—F. A. Nicholson will start a tobacco factory.*

Suffolk—Telephone System.—Books of subscription have been opened for a proposed telephone system. L. P. Harper can be addressed for information.

Suffolk—Iron Foundry.—L. P. Harper writes that a new foundry will be started.

Westmoreland County—Canning Factory.—John R. Dos Passos, of New York city, where letters will probably reach him, will establish tomato canning factory in Westmoreland county.

Whaleyville—Dry-Kilns.—The Jackson Bros. Co. will erect eight new lumber dry-kilns. Contract has been let.

Winchester—Knitting Mill.—Arrangements have been about completed for the establishment of a knitting mill by May 1. J. M. Long can give information.

WEST VIRGINIA.

Bancroft—Coal Mines.—The Kanawha & Lake Erie Coal Co. has been dissolved and succeeded by the Bancroft Coal Co., which will continue operating mines, etc. Thomas B. Bancroft, manager.

Bluefield—Lumber.—The Mountain Lake Lumber Co., lately noted, has for incorporators Frank Woodman, W. O. Daum and C. H. Hatcher, of Charleston, W. Va.; John Sweet, of Big Rapids, Mich., and John Sweet, of Chicago; authorized capital placed at \$1,000,000.

Bluefield—Cigar Factory.—W. L. Otey will start a cigar factory.

Bluefield—Oil Plant.—It is said that the Standard Oil Co. will erect a \$16,000 plant in Bluefield. J. P. Bowles, special agent of the company, Lynchburg, Va., can be addressed.

Buckhannon—Planing Mill.—Thomas Loud, L. P. Loud, C. C. F. McWhorter and W. J. Alexander, of Buckhannon, and J. H. McGrogg, of Shelbyville, have incorporated the Buckhannon Planing Mill Co. with an authorized capital of \$30,000.

Charleston—Coal-mining.—J. E. Chilton, G. O. Chilton, Bilton McDonald, A. M. Hamilton and C. M. Gallagher are the incorporators of the Chilton Coal & Coke Co., incorporated during the week; capital stock \$200,000.

Dingess—Coal Mines.—The Pearl Mining Co. now has its coal mines in full operation, with orders ahead for the entire summer.

Huntington—Construction Company.—A charter has been granted to the Huntington Construction Co. with an authorized capital of \$50,000, its purpose being to contract for all kinds of public and private work. The incorporators are F. L. Doolittle, J. R. Thompson, T. H. Thompson, W. W. Magann and Z. A. Thompson.

Morgantown—Planing Mill.—The incorporators of the Morgantown Planing Mill Co., noted last week, are S. J. Yearly, of Scottsdale, Pa.; J. F. Poole, of Greensburg, Pa.; J. M. Wood, E. M. Grant and R. E. Fast, of Morgantown. The company's purpose is to operate a planing mill and conduct a general lumber business.

Parsons—Lumber Mill.—The Gladys Fork Boom

& Lumber Co. will soon begin the work of erecting a mill to be operated by Hazelton & Hall.

Petroleum-Lumber Mill.—The Cairo Manufacturing & Lumber Co., incorporated recently, is now at work manufacturing, but more machinery is needed. Address R. H. Rutherford, president.

Petroleum-Stave Mill.—The Ritchie Lumber Co. will add the manufacture of staves and shooks to its plant.

Sistersville-Sewers.—The city will let contract in a few weeks for the construction of three miles of pipe sewer. Address G. B. Slemaker, city clerk.

Welch-Coal Mines and Coke Ovens.—The Charleston Coal & Coke Co. is sinking a shaft at its new mine in the Pocahontas coal field; will erect tipples and construct coke ovens.

West Virginia-Coal Mines.—A dispatch from Charleston says that coal mines are to be developed on a tract of 3500 acres of land on Elk river by the Falling Rock Cannel Co., which has just been organized. The capital stock is placed at \$400,000, and J. B. Weir, of New York, is said to be president of the company.

Wheeling-Artesian Well.—Contract has been let to Atkinson & Woods for the sinking of an artesian well at Wheeling Park. The well is to have a flow of 80,000 gallons of water every twenty-four hours.

BURNED.

Baltimore, Md.—Shulze & Co.'s box factory; loss between \$6000 and \$7000.

Brownsville, Tenn.—The Brownsville Storage & Compress Co.'s plant; loss \$10,000.

Columbus, Ga.—C. P. Young's store.

Cordele, Ga.—The Cordele machine shops and planing mill; loss \$30,000.

Crawfordsville, Ark.—W. T. Whitmore & Son's shingle mill, near Crawfordsville.

Cuero, Texas.—The county courthouse.

Daytona, Fla.—The Bishop Fibre Co.'s plant damaged by fire.

Eagle Mills, N. C.—Morrison, Gaither & Co.'s cotton mill; loss \$30,000.

Elizabethtown, Ky.—Buildings of the Hilery Ryan estate; loss \$10,000.

Fort Mill, S. C.—Stores of W. A. Watson and J. Q. Jones.

Greenville, Tenn.—Jerrald's dry-goods store, Brannan's machinery warehouse and T. Clem's building; loss \$20,000.

Greensboro, Md.—Samuel Hanley's spoke factory; loss \$4000.

High Point, N. C.—The Home Furniture Co.'s factory; loss \$35,000.

Houston, Texas.—Residence of Dr. J. T. Boyles; loss \$10,000.

Humboldt, Tenn.—Halley & McGee's business block; loss \$5000.

Joplin, Mo.—Carl Henckel's building; loss \$10,000.

Kansas City, Mo.—Hayward & Co.'s grain elevator at Rosedale; loss \$30,000.

Monroe, N. C.—J. H. Reader's lumber dry-kiln, near Monroe.

Poplar Bluff, Mo.—Mast, Kalback & Spangler's saw mill, eight miles from Poplar Bluff; loss over \$3000.

San Angelo, Texas.—The Concho Hotel; loss \$5000.

Sylvania, Ga.—Michael Waters's grist mill and gin, near Sylvania.

Tarpon Springs, Fla.—The Beekman block and stores of H. B. Webster, G. W. Fernald and Vinson Bros.

BUILDING NOTES.

Albany, Ga.—Hall.—Funds have been raised to erect a hall to cost \$10,000 and seat 3000 people.

Atlanta, Ga.—Sanitarium.—Dr. Holmes will erect a five-story building for a sanitarium. S. M. Patten, of Chattanooga, Tenn., is architect.

Avaca Grove, Fla.—Hotel.—Jacob Disston, of Philadelphia, is reported as interested in a plan to build a large hotel.

Baltimore, Md.—College.—A group of buildings for Johns Hopkins Medical School are to be erected by the trustees. They will include a main building and three laboratories. George Archer is architect.

Baltimore, Md.—Dwellings.—M. J. Flannery has received permission to erect two two-story brick dwellings.

Baltimore, Md.—Hatchery.—Robert Garrett will build a structure 240 feet long, forty feet wide and thirty feet high for hatching chickens. It will have patent incubators and will cost \$8000.

Baltimore, Md.—Car Shed.—The Central Railway Co. will erect a car shed on Druid Hill avenue to cost \$20,000. Address George Blackstone, president.

Baltimore, Md.—Dwellings.—George Platt has obtained permission to erect eight two-story brick dwellings on Carey street.

Baltimore, Md.—Church.—A church to cost \$20,000 is to be built, to be called Reid Memorial Church. Andrew Reid is interested.

Beaumont, Texas.—Church.—The church to be built will be 5330 feet in size and cost \$5000. Bids are to be solicited. Address L. Sonfield.

Cameron, Texas.—Storehouses.—E. Sanders and Dr. Monroe will rebuild their storehouses recently burned and desire estimates for material, etc.

Chattanooga, Tenn.—Residence.—S. M. Patten has prepared plans for a brick residence to cost \$10,000 for J. F. Hutchesson.

Columbia, S. C.—Asylum Addition.—Plans, it is stated, have been prepared for an addition to the State Lunatic Asylum. Address Governor Tillman.

Corsicana, Texas.—Church.—About \$13,000 has been subscribed to build the Methodist church. Address Rev. Bishop, pastor.

Dublin, Ga.—Courthouse.—The county commissioners are considering the erection of a courthouse. Address I. F. Fuller, chairman.

Durham, N. C.—Hospital.—It is reported that a resident of Durham will erect a hospital for public use at his own expense.

Emporia, Va.—Clerk's Office.—The board of supervisors is considering plans for a fire-proof county clerk's office.

Fairfield, Fla.—Hotel.—N. C. Wamboldt will expend \$15,000 in enlarging and improving the Roseland Hotel.

Finca, Va.—Storehouse.—F. G. Woodson has purchased property on which he will erect a business block.

Fort Monroe, Va.—Hotel.—C. C. Ballinger & Co., of Philadelphia, have the contract for completing the Chamberlain Hotel. Already over \$1,000,000 has been spent upon it. Work was suspended a little over a year ago.

Fort Worth, Texas.—Storehouse.—Joseph Linz & Bro., it is stated, have purchased a site for a \$40,000 storehouse.

Franklin, Texas.—School.—Bonds have been issued for erecting a school building. Address Prof. W. A. Gray.

Gainesville, Ga.—Seminary.—A. W. Van Horne states that the proposed addition to the Georgia Female Seminary will cost between \$10,000 and \$15,000. It will be a hall to seat 1200 people and will be heated by steam.

Gallatin, Tenn.—University.—The plans have been prepared for a college to be built by the Knights of Pythias. Capt. C. S. Douglas will give information. It is to cost \$100,000.

Greenville, N. C.—Warehouse.—E. A. Moye is reported as interested in a project to build a tobacco warehouse.

Griffin, Ga.—Temple.—Bids from contractors are about to be solicited for erecting the Odd Fellows hall, which is to cost \$16,000. Address Robert T. Daniel.

Hopkinsville, Ky.—Asylum.—The asylum to be built will cost \$62,000. Bids for its erection are about to be solicited. Address B. W. Stow, superintendent.

Houston, Texas.—Storehouses.—F. S. Glover has prepared plans for storehouses for B. R. Mason to cost \$10,000, and for C. Marshall to cost \$6000.

Jacksonville, Fla.—Hotel.—The Carleton Hotel is to be remodeled at an expense of \$15,000. Address General Divin.

Jacksonville, Fla.—Hotels.—The Kismet Orange Co. has been formed with \$50,000 capital for the purpose of purchasing and building hotels in the State. Sol Haas, at Washington, D. C., is president.

Jacksonville, Fla.—Clubhouse.—The Jacksonville Turnverein wishes plans for a suitable clubhouse.

Juno, Fla.—Hotel.—Dr. S. B. Bell intends erecting a 50-room hotel on Lake Worth to cost \$15,000.

Juno, Fla.—Hotel.—It is stated that Chauncey M. Depew and others are interested in a project to erect a hotel at Juno Beach.

Keyser, W. Va.—Hall.—The hall to be built by the Knights of Pythias will be three stories high and contain stores, lodgerooms and an assembly-room.

Knoxville, Tenn.—Hotel.—The Palace Hotel, it is stated, will be enlarged and remodeled at an expense of \$50,000. Address J. C. Flanders.

Little Rock, Ark.—Theatre.—Walker & Rigby, of Austin, Texas, will remodel the Capital Theatre and put in a new stage and scenery; also steam heating and electric-light plant.

Macon, Ga.—Church Improvement.—The sum of \$15,000 has been raised to build an addition to Mulberry Street Methodist Church and to make other improvements. Address Rev. Dr. Monk.

Marietta, Ga.—Schools.—Sites have been purchased on which two schoolhouses will be built to cost about \$15,000.

Nashville, Tenn.—Hall.—Plans have been prepared for a building for the West Nashville Land Co. to contain stores and a hall. Mark S. Cockrill will give information.

New Martinsville, W. Va.—Bank.—Bids from contractors will be received until April 26 for erect-

ing a bank building. W. Henigst, at Wheeling, is architect.

Orangeburg, S. C.—School.—The plans of Golucke & Stewart, of Atlanta, have been accepted for the school, which is to be 67x160 feet in size and built of brick and iron.

Orangeburg, S. C.—School.—The school to be built will be 67x130 feet and cost \$16,000. Bids will be received until April 26. Address Theodore Kahn.

Paintsville, Ky.—Hall.—The Odd Fellows will build a hall at Paintsville. F. P. Milburn, Catlettsburg, Ky., is architect.

Richmond, Va.—Church.—Plans have been completed by Stewart Barney, of New York, for the Church of the Holy Trinity. Address the rector.

Richmond, Va.—Hall.—Ivanhoe Lodge, Knights of Pythias, has decided to erect a hall and will raise funds.

Roanoke, Va.—Federal Building.—Work has begun on the proposed federal building, which is to cost \$75,000. J. J. Garry is superintendent of construction.

Sparta, Ga.—School.—The school at Sparta is to cost about \$10,000. Plans have been prepared. Contractors address John D. Walker.

St. Louis, Mo.—Hotel.—J. T. Drummond, it is said, intends building a \$200,000 hotel on Washington avenue 186x150 feet in size.

St. Louis, Mo.—Hotel.—Joseph Dormitzer has obtained a permit to build a hotel to contain sixty rooms and to cost \$20,000.

Taylor, Texas.—Bank.—Plans have been prepared for a three-story bank building to be constructed of brick and stone. It is to be three stories high and will contain four vaults; total cost \$15,000. Address Taylor National Bank.

Towson, Md.—Church.—A Catholic church is to be built of stone, 70x150 feet, with steeple 200 feet high. Address Rev. M. O'Keefe.

Weston, W. Va.—Church.—The Episcopalians have secured a site on which they will erect a church.

Winston, N. C.—Church.—A site has been secured on which to build a Methodist church.

RAILROAD CONSTRUCTION.

Augusta, Ga.—The latest report regarding the Louisville & Nashville is that it will secure control of the Port Royal & Augusta road and build a line sixty-five miles long from Fairfax, S. C., to Charleston.

Baltimore, Md.—Contracts have been let and work has begun on the Walbrook, Gwynn oak & Powhatan electric line in the suburbs. It is to be completed by June 1. F. H. Calloway is interested.

Chestertown, Md.—The project of building an electric road from Chestertown to Rock Hall, on Chesapeake bay, is being considered. The distance is thirteen miles.

Crossville, Tenn.—A force of 200 men is grading the Tennessee central, and it is stated that ten miles of rails have been purchased and will be laid at once.

Dallas, Texas.—The Commercial Club announces that a part of the \$35,000 bonus offered the St. Louis Southwestern to extend its road to that city has been raised.

Denison, Texas.—Edward Rolmer, president of the Galveston & Great Northern, has been in Denison and proposes to build his line through the city. It is projected from Niobrara, Neb., to Galveston. D. F. O'Rourke, of Altoona, Pa., and T. G. Clark, of Sterling, Kans., are also interested.

Galveston, Texas.—It is reported that the San Antonio & Gulf Shore road will enter Galveston over the Galveston Western, a narrow-gage line which has a third rail for broad gage inside the city limits.

Galveston, Texas.—About ten miles of the Gulf & Interstate road have been graded, and it is stated that rails for sixty miles of the line have been purchased. C. J. Jones is in charge.

Holden, Mo.—The Missouri, Kansas & Texas will build an extension from Green Ridge, twelve miles south of Sedalia, Mo., on the main line, to Holden, where it will make connection with the Parsons & Pacific line. This will furnish the Missouri, Kansas & Texas a through line to Kansas City via the Missouri, Kansas & Eastern. The new extension will be nearly fifty miles long. Thos. M. Purdy, at St. Louis, may be addressed.

Hot Springs, Ark.—Col. Uriah Lott has let the contract for building the railroad from Benton to Wistar Junction, I. T., via Hot Springs. The distance is about 125 miles.

Knoxville, Tenn.—Chief Engineer Walton, of the Knoxville, Cumberland Gap & Louisville, is preparing plans for a number of trestles and bridges to be built along the line.

Nashville, Tenn.—President J. W. Thomas, of the Nashville Chattanooga & St. Louis, states that it is expected to complete the improvements to the Centerville branch, which is to be changed to standard gage, by July 1.

New Orleans, La.—George A. Tongue, Lucien

Soniat and others are interested in a project to extend what is known as the Judah Hart road to a point on the Mississippi river, where the railroad bridge is to be erected.

Opelika, Ala.—The project to build an electric or steam dummy line between Auburn and Opelika has reached a point where a company is being organized. John L. Cowan is interested.

Petersburg, Va.—The Petersburg Railway Co. has decided to build the proposed belt line around the city, and are about to purchase land for sidings, etc. E. T. D. Myers, at Richmond, general superintendent.

Plant City, Fla.—Chief Engineer R. O. Parsons has begun surveys for the proposed line from Plant City to Boca Grande.

Tallahassee, Fla.—It is stated that the Carra-belle, Tallahassee & Georgia is to be extended from Tallahassee to Thomasville, Ga. J. A. McDuffie is general manager.

Tampa, Fla.—Secretary George Baker, of the Plant City, Okeechobee & Lake Worth road, states that it will be 164 miles long, and that forty miles will be completed by December 1.

Tampa, Fla.—G. W. Walton, of Tarpon Springs, and Jacob Disston, of Philadelphia, are interested in a road projected from Tampa to Sponge Harbor, in Hillsborough county.

Woodlawn, Fla.—The Builders' Supply Co. is building a narrow-gage line from Woodlawn to St. John's river. The company's address is St. Augustine.

Street Railways.

Atlanta, Ga.—President Dayton Hale, of the Atlanta Traction Co., states that the proposed extension of the company's electric lines this year will be at least four miles in all.

Baltimore, Md.—The City Passenger Railway Co. will extend its Canton division one mile. A. N. Connett is chief engineer.

Baltimore, Md.—The Central Railway Co., George Blackstone, president, has obtained permission to extend its line to Druid Hill Park.

Baltimore, Md.—Work has begun on the Hall's Springs division of the City Passenger Railway, which will be rebuilt for electric motors.

Baltimore, Md.—The Baltimore, Canton & Point Breeze Co. has asked permission of the city council to change its proposed route on certain streets of the city.

Kansas City, Mo.—It is stated that an English syndicate represented by Webster Withers, G. W. Clawson and others have purchased the Kansas City & Independence dummy line, which is ten miles long, and will convert it into an electric road.

Nashville, Tenn.—The Citizens' Rapid Transit Co. will make a number of extensions to its system. Address W. H. Mitchell, president.

Rockledge, Fla.—The Rockledge Railway & Improvement Co. has been formed with \$10,000 capital to build a street railway between City Point and Coquina. E. A. Chatfield, New Haven, Conn., is president.

Washington, D. C.—C. S. Henchmann, of Philadelphia, and the Woodbridge & Turner Engineering Co., of New York, have purchased the Arlington electric railway, and it is stated, will complete the road to Arlington.

Canal.

Aucilla, Fla.—Arrangements are being made to excavate a canal to drain the country near the town.

MACHINERY WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Alcohol Machinery.—Geo. A. Leiman, Vandemere, N. C., wants information regarding the manufacture of alcohol.

Ammonia Machinery.—Sol Benjamin, Atlanta, Ga., invites correspondence regarding contracting for ammonia plant, and wants full particulars regarding its manufacture.

Bell.—R. M. Macdonald, Greenville, S. C., wants to buy a fire-alarm bell (second-hand one will do).

Belting, etc.—Horton & Anderson, Orange Park, Fla., want belting, shafting, etc.

Boiler.—Granade & Shields, Thomson, Ga., want a fifty horse-power boiler.

Boiler and Engine.—The Southern Queen Manu-

facturing Co., Chattanooga, Tenn., wants to buy a 100-horse-power engine and boiler; second-hand.

Boiler and Engine.—Horton & Anderson, Orange Park, Fla., may buy engine and boiler.

Boiler and Engine.—The Cedar Creek Mill Co., Brewton, Ala., will want a boiler and engine. Address C. H. Snowden, manager.

Boiler and Engine.—The Southern Queen Manufacturing Co., Chattanooga, Tenn., wants a second-hand 100-horse-power boiler and engine.

Canning Machinery.—W. I. Herbert, Utopia, S. C., will buy capping and tipping irons.

Canning Machinery, etc.—E. N. Penny, Wilmington, N. C., wants to correspond with manufacturers of canning machinery and cans.

Cans.—C. C. Thomas, Bonsack, Va., wants prices on two and three-pound tin fruit cans by the dozen cases.

Cans.—Koons & Birely, Ladiesburgh, Md., will buy cans.

Cars.—C. P. Lovell, receiver St. J. & L. E. Railway, Leesburg, Fla., wants to buy two coaches, a combination car, five box cars and three flat cars (second-hand, three foot gage).

Corn Mill.—The Georgia Standard Ochre Co., Cartersville, Ga., wants a crusher for chopping corn and cobs.

Corn-mill Machinery.—Granade & Shields, Thomson, Ga., want two sets of best mill rock for corn, together with all running gear.

Corrugated Iron.—Granade & Shields, Thomson, Ga., want corrugated iron for building.

Cotton-mill Machinery.—The G. W. Patterson Manufacturing Co., Concord, N. C., wants to purchase full equipment for a cotton mill.

Creamery.—B. J. Fisher, Ashboro, N. C., wants a small butter-extractor plant.

Dry-kiln.—The Cairo Manufacturing & Lumber Co. needs a dry-kiln. Address R. H. Rutherford, president, Petroleum, W. Va.

Electric Apparatus.—The East Mississippi Insane Asylum, Meridian, Miss., may possibly buy storage batteries.

Electric-light Plant.—Hughes, Chisolm & Co., Charleston, S. C., are in the market for an electric-light plant.

Electric Motor.—E. M., Sun Office, Washington, D. C., wants a two-horse power electric motor good as new.

Electric Motor.—The Lanier Printing Co., Winston, N. C., will buy an electric motor.

Engine.—Granade & Shields, Thomson, Ga., want a forty-horse-power engine.

Engine.—H. 894, Sun Office, Baltimore, Md., wants a second-hand vertical engine 8x8 or any other size up to 10x10.

Fire Equipment.—The directors of the Central Lunatic Asylum of Petersburg, Va., have appointed a committee to ascertain the probable cost of putting in appliances for fire protection. Address Robt. Gilliam, president.

Fire Equipments.—The board of fire commissioners of Baltimore, Md., have appropriated \$15,000 and \$8000 for equipping two new engine companies.

Foundry.—The Cordele Machine Shop, Cordele, Ga., will want nearly an entire equipment for new foundry. Address R. C. Harris, secretary.

Foundry, Machine Shop, etc.—The Glamorgan Co., Lynchburg, Va., will have to buy complete outfit of machinery for its new plant. The company is founder and machinist, manufactures cast-iron pipe, mining machinery, etc.

Gas Engine.—Charles H. Hall, Box 512, New Berne, N. C., wants a second-hand gas engine of five or six horse-power for marine use.

Gear Wheels, Cast Box, etc.—Martin Armstrong, Velasco, Texas, wants the necessary machinery for the manufacture of an odometer composed of cast box, brass cut gear wheels one twenty-fourth and one-sixteenth inch thick, eighty to 105 teeth, two inches in diameter, or will contract for their manufacture.

Heating Apparatus.—Jeremiah O'Rourke, supervising architect, Washington, D. C., will receive sealed proposals until May 2 for the low-pressure steam heating and mechanical ventilating apparatus, including elevator-power, boiler, etc., for postoffice building at Paris, Texas.

Heating Apparatus.—Jos. G. Jeter, Covington, Va., wants catalogues of furnaces for heating schools.

Ice Machines.—The Anniston Whiskey Co., Anniston, Ala., wants to correspond with manufacturers of small ice machines.

Launch.—A naphtha or gasoline launch to accommodate about forty persons is wanted by C. H. McMaster, secretary Chamber of Commerce, Galveston, Texas.

Locomotives.—C. P. Lovell, receiver St. J. & L. E. Railway, Leesburg, Fla., wants to buy two locomotives (second-hand, three-foot gage).

Locomotives.—It is said that the Missouri, Kansas & Texas Railroad Co. is soliciting bids for the erection of five new consolidated locomotives. Address Thos. C. Purdy, general manager, Parsons, Kans.

Machine-shop Equipment.—The Cordele Machine Shop, Cordele, Ga., will want nearly an

entire equipment for new plant. Address R. C. Harris, secretary.

Machine-shop Machinery.—Horton & Anderson, Orange Park, Fla., want to buy engine lathes, drill presses, shaper, planer and other machinery for machine shop.

Oil-mill Machinery.—J. P. Kyle, Columbus, Ga., wants to correspond with manufacturers of machinery for crushing cottonseed, separating the hulls, etc.

Phosphate Machinery.—Swan & Williams, Fernandina, Fla., have to purchase phosphate machinery.

Piping.—Koons & Birely, Ladiesburgh, Md., will buy piping.

Planers, etc.—The Cedar Creek Mill Co., Brewton, Ala., will want planers and molders. Address C. H. Snowden, manager.

Pipe.—John T. Howard, Quincy, Fla., wants to correspond with manufacturers of water pipe.

Pump.—The Baltimore Cedar Works, foot of Warner street, Baltimore, Md., wants a duplex pump.

Punching Machine.—The Lanier Printing Co., 214 West Fourth street, Winston, N. C., will buy punching or stamping machinery.

Quarry Supplies, etc.—H. B. Kerr & Sons, Muldoon, Texas, want quarry supplies and explosives.

Railroad Equipment.—The Cedar Creek Mill Co., Brewton, Ala., will want rails for two miles of track, locomotives, cars, etc., for lumber road. Address C. H. Snowden, manager.

Rails.—The Mason & Ford Co., Eddyville, Ky., wants about one mile of 25-pound T rails, with angle bars and bolts; must be in good condition, and offered at a bargain. Quote prices delivered.

Roofing.—Jno. Craddock & Co., 23 Elm street, Cumberland, Md., will want iron or steel roofing for 50x20-foot building.

Roofing.—Koons & Birely, Ladiesburgh, Md., will buy roofing.

Saw.—The Lanier Printing Co., Winston, N. C., will buy saw for cutting steel and iron.

Saw Mill.—Jos. H. Abels, Rosedale, Miss., wants to buy a second-hand circular saw mill complete (15,000 feet capacity).

Saw Mill.—The Cairo Manufacturing & Lumber Co. wants a small saw mill with long carriage to cut frame timber. Address R. H. Rutherford, president, Petroleum, W. Va.

Saw-mill Machinery.—Adler & Griffin, Windsor, Fla., want a rotary saw-mill outfit.

Soap Machinery.—Jno. Craddock & Co., 23 Elm street, Cumberland, Md., will want soap-making machinery.

Stave Machinery.—The Ritchie Lumber Co., Petroleum, W. Va., wants oak stave and shook machinery.

Telephone Equipment.—The American District Telegraph Co., San Antonio, Texas, wants to purchase telephone equipment, such as call boxes, telephone instruments, wire, poles, etc. Address C. M. Kingsley, secretary.

Telephone Equipment.—F. J. Moore, Cordele, Ga., wants prices on equipment for telephone exchange of 100 subscribers.

Telephone Equipment.—The Augusta Telephone & Electric Co., Augusta, Ga., will purchase telephone equipment. Address Dan J. Murphy, Lincoln and Walker streets.

Telephone Equipment.—The Nansmond Telephone Co., Suffolk, Va., wants bids on construction of telephone line, equipment, etc. Address L. P. Harper.

Tobacco Machinery.—F. A. Nicholson, Roanoke, Va., wants correspondence from manufacturers of smoking-tobacco machinery.

Water Wheel.—The Cedar Creek Mill Co., Brewton, Ala., will want a water wheel. Address C. H. Snowden, manager.

Water Works.—The board of city commissioners of Key West, Fla., will receive bids for sixty days for the construction of water works, supplying of material, etc. See advertisement in MANUFACTURERS' RECORD.

Water Works.—Bids will be opened May 15 for the construction of water works at Aiken, S. C. L. J. Barbot, of Augusta, Ga., engineer in charge.

Wheel Press.—The Georgia Iron Works, Augusta, Ga., wants a second-hand 100-ton hydraulic wheel press.

Woodworking Machinery.—C. W. Gary, Pope, Va., wants a second-hand double-edger and trimmer.

Woodworking Machinery.—The Cairo Manufacturing & Lumber Co. wants turning lathe, equalizing saw rig, resaw, etc. Address R. H. Rutherford, president, Petroleum, W. Va.

Woodworking Machinery.—The Georgia Standard Ochre Co., Cartersville, Ga., wants to buy machinery for manufacturing cooperage stock.

J. A. Tempest, Houston, Texas, wants to correspond with makers of tile mantels.

T. B. Smith, Hillsboro, Texas, wants to correspond with dealers in gun material.

The Georgia Standard Ochre Co., Cartersville, Ga., wants to buy 30 to 32-inch staves and 19-inch heads in carload lots.

The fire-proof qualities of the H. W. Johns asbestos roofing have been fully demonstrated. Many large manufactories have used it for years and recommend it highly.

In another column will be found an announcement of the sale of ventilating apparatus, which will be sold at a low price. It comprises a plant of steam ventilating fans suitable for buildings. The fans are of modern construction. W. T. Nash, at Centre Market, Washington, D. C., may be addressed.

Mr. F. W. CAPES, miller for D. R. James & Bros., of New York city, writes to the J. R. Alsing Co., of New York, as follows: "I have been using your Abbe mill for over a year with perfect satisfaction for grinding aniseed, coriander seed, caraway seed, fennel seed, sage, thyme, summer savory, sweet marjoram, with no shrinkage, finer ground and no tailings left over, than it is possible to grind these goods in a buhrstone mill; and it is the only mill in all my experience that will grind any kind of ginger, including the fibre, to a fine ground powder, and not leave a partial of fibre to be seen, and doing 600 or 700 pounds per hour."

READ HOUSE, Chattanooga, Tenn., is one of the most favorably-known hotels in the South; attested by its register record; second to none in the number of names enrolled therein daily. Its situation immediately in front of the union depot, and at the same time in the centre of the business portion of the city, makes it at all times the commandant of the patronage of the tourist as well as commercial man, who have made it headquarters in Chattanooga for years. We bespeak for the Read continued popularity.

The water route of the Norwich Line between Boston and New York is entirely within Long Island Sound, thus avoiding the rough water and seasickness incidental to "outside" lines. The dining saloon on these steamers is on the upper deck, insuring plenty of light and air. The state-rooms are \$1.00 and \$2.00, according to size and location, and accommodate two or more persons. Always ask for tickets via this line at all the principal ticket offices in Philadelphia, Washington, Baltimore, Harrisburg and all points South and West. Passengers for Boston and the East can avoid the inconvenience of carriage transfer in New York, as steamers leave the pier adjoining Pennsylvania Railroad Ferry, foot Desbrosses street.

DEPARTMENT OF THE INTERIOR, General Land Office, Washington, D. C., April 14, 1894. Sealed proposals will be received at this office until 2 o'clock p. m., Monday, May 7, 1894, for photolithographing and printing 15,000 copies, more or less, of the maps of the United States, and 20,000 copies, more or less, of the maps of the land States and Territories prepared in the General Land Office. Specifications as to the character of the work, size of maps, quality of paper may be procured at this office, where specimens will be exhibited to bidders, who must satisfy themselves as to all requirements. At the same time and place proposals will also be opened for photolithographing and printing such copies of township plats and other official plats constituting part of the official records of the office as shall be required during the fiscal year ending June 30, 1895. Details and samples of the work to be done will be exhibited to bidders on application. All bids accepted and contracts awarded subject to an appropriation by Congress to meet the expense. Bonds with approved sureties for faithful performance of the work will be required. The right is reserved to reject any and all bids. Proposals must be made in duplicate and addressed to the Commissioner of the General Land Office, indorsed on the envelope "Proposals for United States Maps," or "Proposals for reproducing Township Plats," as the case may be. All proposals will be opened at the time and place above stated, and bidders are invited to be present at such opening.

S. W. LAMOREUX, Commissioner.

DEPARTMENT OF THE INTERIOR, United States Patent Office, Washington, D. C., April 14, 1894. Sealed proposals will be received at the Office of the Commissioner of Patents, until 2 o'clock p. m., Monday, May 7, 1894, for photolithographing or otherwise producing plates for the Official Gazette, for photolithographing or otherwise producing copies of drawings of the weekly issue of patents, for producing copies of designs, trade marks, and pending applications, for the reproduction of exhausted copies of drawings and specifications for the fiscal year ending June 30, 1895, and for the republication of 1930 pages, more or less, of the Official Gazette containing the patents which will expire between July 1, 1894, and June 30, 1895. All of said work to be done under the supervision of the Commissioner of Patents, and in the City of Washington, if it can there be done at reasonable rates. Specifications and specimens will be furnished upon application. All bids accepted and contracts awarded will be subject to the appropriation to be made by Congress to meet the expense. Bonds with approved sureties for the faithful performance and execution of all work called for by contract will be required. The Commissioner reserves the right to reject any and all the bids received. The process to be used in the performance of the work must be stated, and all proposals must be submitted in duplicate, addressed to the Commissioner of Patents, indorsed on the envelope "Proposals for photolithographic work, Patent Office." The proposals will be opened at the time and place above stated, and bidders are invited to be present at such opening.

JOHN S. SEYMOUR, Commissioner.

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Atlantic City.	
Numbers of visitors are now being attracted to the Queen City by the Sea to enjoy the pure and invigorating air, the balmy breezes tempered by the Gulf Stream and the multitude of attractions of the popular American watering place—Atlantic City. The board walk, which is a distinctive feature of this resort, now presents daily a panorama of almost an endless procession of humanity. The hotels in the evening convey a most attractive picture of social enjoyment and inviting comfort. The train service of the Pennsylvania Railroad presents the quickest and most comfortable ride to and from this resort. From Baltimore (Union Station) the 12.53 and 4.10 A. M., 12.05 and 1.20 P. M. trains week days, and on Saturdays the 10.45 A. M. train make close connection with trains from Philadelphia (foot of Market street) over the company's double line to Atlantic City. Returning, express trains leave Atlantic City at 7.35 and 9.00 A. M. and 3.55 P. M. week days, 4.00 and 5.30 P. M. Sundays only, closely connecting at Philadelphia with trains for Baltimore. Excursion tickets are now on sale at all the company's principal ticket offices.	

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 its cash value. Phosphate and timber lands for
 sale; a phosphate plant offered at \$30,000.00, pay-
 ing \$10,000.00 net profit per annum; 4360 acres at
 \$2.87½ per acre, near Winter Haven, Fla. (this is
 the noted tomato region, small tracts selling at
 \$20 to \$50 per acre.) If interested write us.
 Reference—Dun, Bradstreet or National Bank of
 this city.

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BALTIMORE, MD.

PROPOSALS.

PROPOSALS FOR SEWERS.—Sealed pro-
 posals for constructing Sewers endorsed
 "Proposals for Constructing Sewers," and ad-
 dressed to I. A. Mooser, City Clerk, will be
 received by the Mayor and Boards of Council-
 men and Aldermen of the City of Meridian,
 Miss., at the City Clerk's office, up to Tuesday,
 May 1st, 1894, until 12 o'clock noon for the con-
 struction of a system of Sewerage. The work
 comprises about seventeen miles of vitrified
 pipe sewer, about one mile of brick sewer, 304
 man-holes, brick masonry, etc. The work to be
 done in accordance with plans and specifica-
 tions on file in the office of the City Engineer,
 where blank forms of proposals and contract may
 be had. The right to reject any or all bids
 is reserved.

I. A. MOOSER, City Clerk.

N. M. BRANDON, City Engineer.

Meridian, March 19, 1894.

NOTICE TO CONTRACTORS.

Sealed bids will be received at my office at
 Blackshear, Georgia, until May 15, 1894, for the
 erection of a Brick and Stone Jail Building with
 Steel Cells. Plans, specification and form of
 contract are on file in my office. Copies may
 also be seen at the office of the Architect, Mr.
 George Feltham, Waycross, Georgia. Each bid-
 der will be allowed to furnish steel and iron
 specifications, showing his construction of cells
 and metal used in same. Terms of payment at
 option of county: all cash on completion, or one-
 third cash each January, 1895, 1896, 1897. Con-
 tractors may estimate for the building and steel
 cell work as a whole or separately. The right
 to reject any or all bids is reserved.

W. O. AHL,
Ordinary, Pierce Co.

BIDS WANTED.

THE BOARD OF CITY COMMISSIONERS
 will receive bids for the period of sixty
 days for the furnishing of plans and specifications
 and for the furnishing of materials necessary
 for the constructing of a complete system of
 water works for the City of Key West, in accord-
 ance with set of plans and specification which
 may be adopted by the Board and will pay for
 the accepted plans and specifications a sum not
 to exceed two thousand dollars (\$2000); all other
 plans and specifications which may be furnished
 and which are not accepted will not be paid for.
 The Board reserves the right to reject any and
 all bids and plans and specifications that may
 be submitted, and the City of Key West reserves
 the right to pay for plans and specifications and
 all material and labor required in the construc-
 tion of the work, in whole or in part, in 6 per
 cent, semi-annual interest bearing Water Works
 Bonds of the City of Key West at not less than
 par value. Address CITY COMMISSIONERS,
 Key West, Fla.

**PROPOSALS FOR SUPPLIES FOR THE
 POST OFFICE DEPARTMENT AND
 POSTAL SERVICE.**

POST OFFICE DEPARTMENT.

WASHINGTON, D. C., April 2d, 1894.

Sealed proposals will be received at this De-
 partment until Monday, May 7, 1894, at 2 o'clock
 p. m., for furnishing wrapping paper, wrapping
 paper for facing slips, twine, letter scales, post-
 marking and rating stamps, rubber stamps, can-
 celling ink, pads, paper, envelopes, rubber
 goods, pens, pen holders, pencils, inks, mucil-
 age, glass goods, rulers, folders, articles of
 steel, rubber erasers, books, typewriter supplies,
 and miscellaneous stationery, in such quantities
 of the different articles respectively, and at such
 times and from time to time, as they may be
 ordered, during the fiscal year beginning July
 1, 1894, and ending June 30, 1895, for the use of
 any branch of the departmental or postal service.
 Blank forms for proposals, with specifications, giv-
 ing detailed statement of the requirements to be
 met in respect to each article, and also the esti-
 mated quantities probably to be required of
 each, and giving full instructions as to the man-
 ner of bidding and conditions to be observed by
 bidders, will be furnished on application to the
 Superintendent of the Division of Post Office
 Supplies, Post Office Department, Washing-
 ton, D. C.

The Postmaster General reserves the right to
 reject any or all bids, to waive technical defects,
 and to accept any part of any bid and reject the
 other part.

WILSON S. BISSELL,
Postmaster General.

DEPARTMENT OF THE INTERIOR, Wash-
 ington, D. C., April 14, 1894. Sealed propo-
 sals will be received at this Department until 2
 o'clock p. m., Monday, May 7, 1894, for furnishing
 the following classes of supplies, etc., during
 the fiscal year ending June 30, 1895, to wit: (1)
 for Fuel and Ice; (2) for Furniture, Towels,
 Forage, and other Miscellaneous Supplies; (3)
 for Stationery; (4) for Envelopes for the Department
 of the Interior, its several bureaus and
 offices, and the Civil Service Commission. Also
 for such meats, provisions, groceries, dry goods,
 shoes, drugs, paints, hardware, fuel, ice, lumber,
 etc., as may be required by the Government
 Hospital for the Insane near Washington, D. C.,
 during same period. At the same time and place
 proposals will also be received for the Washing-
 ton of Towels for the Department, its bureaus, and
 the Civil Service Commission for the year ending
 June 30, 1895, as well as for the purchase during
 that period of the Waste Paper of the Department
 of the Interior. Bids must be made on Govern-
 ment blanks. All bids (except those for purchase
 of waste paper) accepted and contracts awarded
 subject to an appropriation by Congress to meet
 the expense. Forms of proposals, schedules of
 items, specifications and instructions will be
 furnished to bidders on application to the Chief
 Clerk of the Department; but requests for blanks
 should specifically designate the class or classes
 of supplies upon which it is proposed to bid.
 All proposals will be opened at the time and

place above stated, and bidders are invited to be
 present at such opening. HOKE SMITH,
 Secretary.

TREASURY DEPARTMENT, Office Supervis-
 ing Architect, Washington, D. C., April 5,
 1894. Sealed proposals will be received at this
 office until 2 o'clock P. M., on the 2nd day of
 May, 1894, and opened immediately thereafter,
 for all the labor and materials required to fix in
 place complete, the low-pressure steam heating
 and mechanical ventilating apparatus, including
 elevator, power boiler, etc., for the U. S. Court-
 house, Postoffice, etc., building at Paris, Texas,
 in accordance with drawings and specification,
 copies of which may be had at this office or at
 the office of the Superintendent at Paris, Texas.
 Each bid must be accompanied by a certified
 check for a sum not less than two per cent. of the
 amount of the proposal. The right is reserved
 to reject any or all bids and to waive any defect
 or informality in any bid should it be deemed in
 the interest of the Government to do so. All
 bids received after the time stated will be
 returned to the bidders. Proposals must be en-
 closed in envelopes, sealed and marked, "Pro-
 posal for the Low-Pressure Steam Heating and
 Mechanical Ventilating Apparatus, Elevator,
 Power Boiler, etc., for the U. S. Courthouse,
 Postoffice, etc., Building at Paris, Texas," and
 addressed to JEREMIAH O'ROURKE, Super-
 vising Architect.

NOTICE.

NORFOLK AND WESTERN RAILROAD CO.

The Annual Meeting of the shareholders of the
 Norfolk and Western Railroad Company will be
 held on Wednesday, the second day of May,
 1894, at 10 o'clock, A. M., at the office of the
 Company, in the city of Roanoke, Virginia,
 when an election will be held for thirteen
 directors for the ensuing year, and such other
 business transacted as may properly come be-
 fore the meeting. The transfer books will be
 closed from 3 o'clock P. M., April 14, 1894, until
 9 o'clock, A. M., May 4th, 1894.

April 12th, 1894. A. J. HEMPHILL, Secty.

A New Topographic Map

OF THE

SOUTH APPALACHIAN REGION.

Compiled from the latest government surveys
 by John W. Hays, City Engineer of Petersburg,
 Va., late of the Engineer Corps of the United
 States Geological Survey.

A large wall map, printed in colors, showing
 in detail the topography of the entire mountain
 region of the South from the Ohio River to
 Chattanooga. Correct elevations given in feet
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**2000 SPINDLES, 30 LOOMS, DRAW-
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Said Mill is well equipped and in good running
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Woodworking machinery of all kinds furnished. Send for list of tools.

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PUBLISHED BY

Manufacturers' Record Publishing Co.

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